Kansas

State Agricultural College.

CATALOGUE, 1892-'93.

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MAIN COLLEGE HALL.

THIRTIETH ANNUAL CATALOGUE

OF THE

Officers, Students, and Graduates

OF THE

. . . STATE . . .

Agricultural College

OF KANSAS.

1892-'93.

MANHATTAN, KANSAS,
1893.

Terms and Vacations.

Fall Term, 1893.

Wednesday, Sept. 13.—Examination for admission, at 9 a. m.
Thursday, Sept. 14.—College year begins.
Friday, Oct. 27.—Examination.
Friday, Dec. 8.—Annual exhibition of the Alpha Beta Society.
Thursday and Friday, Dec. 21, 22.—Examination at close of fall term.
December 23 to January 8.—Winter vacation.

Winter Term, 1894.

Monday, Jan. 8.—Examination for admission, at 9 a. m.
Tuesday, Jan. 9.—Winter term begins.
Saturday, Feb. 3.—Annual exhibition of the Hamilton Society.
February 6 to 17.—Short lecture course for farmers.
Friday, Feb. 16.—Examination.
Saturday, Mar. 17.—Annual exhibition of the Webster Society.
Thursday and Friday, Mar. 29, 30.—Examination, close of winter term.

Spring Term, 1894.

Monday, April 2.—Spring term begins.
Friday, April 27.—Annual exhibition of the Ionian Society.
Friday, May 4.—Examination.
Monday and Tuesday, June 11, 12.—Examination at close of year.
June 10 to 13.—Exercises of Commencement week.
Wednesday, June 13, at 10 a. m.—Commencement.
June 14 to September 12.—Summer vacation.

Fall Term, 1894.

Wednesday, Sept. 12—Examination for admission, at 9 a. m.
Thursday, Sept. 13.—College year begins.

Board of Regents.

HON. A. P. FORSYTH (1894),* *President*,
Liberty, Montgomery county.

HON. W. D. STREET (1896), *Vice President*,
Oberlin, Decatur county.

HON. JOSHUA WHEELER (1894), *Treasurer*,
Nortonville, Jefferson county.

HON. E. D. STRATFORD (1895), *Loan Commissioner*,
El Dorado, Butler county.

HON. ED. SECREST (1895),
Randolph, Riley county.

HON. HARRISON KELLEY (1896),
Burlington, Coffey county.

PRES. GEO. T. FAIRCHILD (*ex officio*), *Secretary*.

I. D. GRAHAM, *Assistant Secretary*,
Manhattan.

*Term expires.

Board of Instruction.

FACULTY.

GEORGE T. FAIRCHILD, A. M. (*Oberlin*), PRESIDENT,
Professor of Logic and Philosophy.

GEORGE H. FAILYER, M. Sc. (*Kansas Agricultural College*),
Professor of Chemistry and Mineralogy.

EDWIN A. POPENOE, A. M. (*Washburn*),
Professor of Horticulture and Entomology, Superintendent of Orchards and Gardens.

DAVID ERNEST LANTZ, M. Sc. (*Pennsylvania State Normal*),
Professor of Mathematics, Librarian.

JOHN D. WALTERS, M. Sc. (*Kansas Agricultural College*),
Professor of Industrial Art and Designing.

IRA D. GRAHAM, A. M. (*Eureka*),
Secretary, Instructor in Bookkeeping.

OSCAR EUGENE OLIN,
Professor of English Language and Literature.

MRS. NELLIE SAWYER KEDZIE, M. Sc. (*Kansas Agricultural College*),
Professor of Household Economy and Hygiene.

MRS. ELIDA E. WINCHIP,
Superintendent of Sewing.

OZNI P. HOOD, B. Sc. (*Rose Polytechnic*),
Professor of Mechanics and Engineering, Superintendent of Workshops.

ALEXANDER B. BROWN, (*Graduate of Boston Music School,*) A. M. (*Olivet*),
Professor of Music.

JOHN S. C. THOMPSON,
Superintendent of Printing.

FRANCIS H. WHITE, A. M. (*Princeton*),
Professor of History and Political Science.

CHARLES C. GEORGESON, M. Sc. (*Michigan Agricultural College*),
Professor of Agriculture, Superintendent of Farm.

EDWIN B. BOLTON, Captain 23d U. S. Infantry (*United States Military Academy*),
Professor of Military Science and Tactics.

ERNEST R. NICHOLS, B. D. (*Iowa State Normal*), B. S., A. M. (*State University of Iowa*),
Professor of Physics.

NELSON S. MAYO, D. V. S. (*Chicago Veterinary College*), M. S. (*Michigan Agricultural College*),
Professor of Physiology and Veterinary Science.

JULIUS T. WILLARD, M. Sc. (*Kansas Agricultural College*),
Assistant Professor of Chemistry.

ALBERT S. HITCHCOCK, M. Sc. (*Iowa Agricultural College*),
Professor of Botany.

SILAS C. MASON, B. Sc. (*Kansas Agricultural College*),
Assistant Professor of Horticulture.

Miss JOSEPHINE C. HARPER,
Instructor in Mathematics.

Miss ALICE RUPP,
Instructor in English.

Other Officers.

C. M. BREESE, M. Sc., Assistant in Chemistry.
JULIA R. PEARCE, B. Sc., Assistant Librarian.
BESSIE B. LITTLE, B. Sc., Assistant in Sewing.
GRACE M. CLARK, B. Sc., Stenographer in Executive Offices.
F. C. SEARS, B. Sc., Foreman of Orchards and Gardens.
WM. BAXTER, Foreman of Greenhouse.
W. L. HOUSE, Foreman of Carpenter Shop.
E. HARROLD, Foreman of Iron Shop.
L. A. McKEEN, Foreman of Farm.
C. A. GUNDAKER, Engineer.
A. C. McCREARY, Janitor.*
F. F. DAVIS, Janitor.†

Student Assistants.

PHŒBE E. HAINES, M. Sc., Industrial Art.
MINNIE REED, B. Sc., Geography, Calisthenics.
LORA L. WATERS, B. Sc., Arithmetic, English.
CLARENCE E. FREEMAN, B. Sc., Athletics.
MARIE B. SENN, B. Sc., English.
LOTTIE J. SHORT, B. Sc., Household Economy.
RUTH T. STOKES, B. Sc., English.
EDMUND C. ABBOTT, Agriculture.
ALBERT DICKENS, Horticulture.
MAC F. HULETT, Printing.
FRED HULSE, Surveying.
CHARLES R. HUTCHINGS, Woodwork.
THOMAS E. LYON, Agriculture.
THEO. W. MORSE, Horticulture.
CH. W. PAPE, Mineralogy.
MAUDE H. PARKER, Music.
VICTOR I. SANDT, Chemistry and Mineralogy.
J. A. SCHEEL, Mineralogy.
FRED R. SMITH, Surveying.
WILLIAM E. SMITH, Horticulture.
WILLIAM H. STEUART, Surveying.
JOHN STINGLEY, Horticulture.

* Resigned, December 31, 1892.
† Appointed, January 1, 1893.

CHEMICAL LABORATORY.

Experiment Station.

Council.

PRESIDENT FAIRCHILD, Chairman, *ex officio.*

PROFESSOR FAILYER, Chemistry.

PROFESSOR POPENOE, Horticulture and Entomology.

PROFESSOR GEORGESON, Agriculture.

PROFESSOR MAYO, Veterinary Science.

PROFESSOR HITCHCOCK, Botany.

I. D. GRAHAM, Secretary.

Assistants and Foremen.

J. T. WILLARD, M. Sc., Chemistry.
S. C. MASON, B. Sc., Horticulture.
F. A. MARLATT, B. Sc., Entomology.
WM. SHELTON, Foreman of Farm.*
F. C. BURTIS, B. Sc., Agriculture.
D. H. OTIS, B. Sc., Agriculture.
M. A. CARLETON, B. Sc., Botany.

* Resigned, February 28, 1893.

Students.

POST GRADUATES.

CANDIDATES FOR ADVANCED DEGREE, 1893.

RESIDENT.

Mark A. Carleton, '87.....*Botany, Horticulture.*
Manhattan, Riley county.

Clarence E. Freeman, '89.....*Physics, Engineering.*
North Topeka, Shawnee county.

Silas C. Mason, '90.....*Horticulture, Botany.*
Manhattan, Riley county.

Minnie Reed, '86.....*Botany, Domestic Economy, Horticulture.*
St. Clere, Pottawatomie county.

Marie Barbara Senn, '90.....*Chemistry, Domestic Economy.*
Enterprise, Dickinson county.

Lottie Jane Short, '91.....*Chemistry, Domestic Economy.*
Blue Rapids, Marshall county.

Lora Luvernia Waters, '88.....*Botany, Domestic Economy.*
Junction City, Geary county.

NONRESIDENT.

John Brookins Brown, '87.....*Agriculture, Physics.*
Nashville, Tennessee.

Walter Herbert Olin, '89.....*Agriculture, Botany.*
Osborne, Osborne county.

IN COURSE.

RESIDENT.

Frank Charles Burtis, '91.....*Agriculture, Botany.*
Manhattan, Riley county.

Grace Maria Clark, '92.....*Botany, Literature.*
Manhattan, Riley county.

Mary Emmeline Cottrell, '91.....*Horticulture, Chemistry, Domestic Economy.*
Wabaunsee, Wabaunsee county.

Malvina G. Grant, K. S. N. S.....*Domestic Economy.*
Beloit, Mitchell county.

Phœbe Ellen Haines, '83.....*Industrial Art, Domestic Economy.*
Manhattan, Riley county.

Lilla A. Harkins, S. D. A. C.....*Chemistry, Domestic Economy.*
Brookings, South Dakota.

Bertha Sarah Kimball, '90.....*Entomology, Horticulture.*
Manhattan, Riley county.

Bessie Belle Little, '91.....*Music, Domestic Economy.*
Manhattan, Riley County.

James Laird McDowell, '92.....*Iron Work.*
Manhattan, Riley county.

Frederick Albert Marlatt, '87.....*Entomology, Horticulture.*
Manhattan, Riley county.

Fred. C. Sears, '92.....*Horticulture, Botany.*
Manhattan, Riley county.

Ruth Tipton Stokes, '92.....*Botany, Domestic Economy.*
Garnett, Anderson county.

Mary Alice Vail, '92.....*Domestic Economy, Botany, Literature.*
Manhattan, Riley county.

NONRESIDENT.

Rachel Callie Conwell, '91.....*Domestic Economy.*
Nelson, Indian Territory.

Phil Sheridan Creager, '91.....*Botany.*
Denver, Colorado.

Lyman Hempstead Dixon, '88.....*Physics, Engineering.*
Boise City, Idaho.

William J. Lightfoot, '81.....*Physics, Engineering.*
Cripple Creek, Colorado.

Ava Hamil-Tillotson, '92.....*Zoölogy, Domestic Economy.*
Salina, Saline county.

Frank Albert Waugh, '91.....*Horticulture, Botany.*
Stillwater, Oklahoma.

George Washington Wildin, '92.....*Mathematics, Physics, Engineering.*
Topeka, Shawnee county.

FOURTH YEAR.

Name.	*Post Office and County.*
Edmund Clarence Abbott,	Garden City, Finney.
Edward Jones Abell,	Leonardville, Riley.
Edwin McMaster Stanton Curtis,	Council Grove, Morris.
Corinne Louise Daly,	Nashville, *Michigan.*
Laura Greeley Day,	Manhattan, Riley.
Ione Dewey,	Manhattan, Riley.
Albert Dickens,	Alden, Rice.
Mary Maud Gardiner,	Bradford, Wabaunsee.
Susie Hall,	Farmington, Atchison.
Mary Frances Burgoyne Harman,	Valley Falls, Jefferson.
Ivy Frances Harner,	Lasita, Riley.
Margaretha Elise Horn,	Westerbergen, *Germany.*
Marcia Ione Hulett,	Edgerton, Johnson.
Onie Hulett,	Edgerton, Johnson.
Fred Hulse,	Keats, Riley.
Charles R. Hutchings,	Pomona, Franklin.
Charles Augustus Kimball,	Manhattan, Riley.
Maude Ethel Knickerbocker,	Long Pine, *Nebraska.*
Thomas Eddy Lyon,	Riley, Riley.

Name.	*Post Office and County.*
William Otis Lyon,	Clay Centre, Clay.
McLeod Wilson McCrea,	Dunavant, Jefferson.
Rose Edith McDowell,	Manhattan, Riley.
George Lane Melton,	Silverdale, Cowley.
William Douglas Morrison,	Arispie, Pottawatomie.
Eusebia DeLong Mudge,	Eskridge, Wabaunsee.
Nora Newell,	Manhattan, Riley.
August Fred Niemoller,	Stitt, Dickinson.
Susie Amanda Noyes,	Wabaunsee, Wabaunsee.
Henry Leamer Pellett,	Prairie Centre, Johnson.
Charles John Peterson,	Randolph, Riley.
Carl Frederic Pfuetze,	Manhattan, Riley.
John Dewitt Riddell,	Conway, McPherson.
John Albert Rokes,	Onaga, Pottawatomie.
Agnes Romick,	Manhattan, Riley.
Fred Raymond Smith,	Manhattan, Riley.
George Wildman Smith,	Manhattan, Riley.
William Elmer Smith,	Manhattan, Riley.
John Edwin Taylor,	Berryton, Shawnee.
John Eugene Thackrey,	Manhattan, Riley.
Joseph B. Thoburn,	Peabody, Marion.
Charles Henry Thompson,	Bakersfield, *California.*
George K. Thompson,	Irving, Marshall.
William James Yeoman,	La Crosse, Rush.

THIRD YEAR.

William Trueman Allen,	Manhattan, Riley.
Frank Weber Ames,	Riley, Riley.
George Gordon Boardman,	Centralia, Nemaha.
Joe William Brooks,	Manhattan, Riley.
Clara Francelia Castle,	Manhattan, Riley.
George Luther Christensen,	Mariadahl, Riley.
John Cornelius Christensen,	Mariadahl, Riley.
Lorena Estella Clemons,	Alida, Geary.
Martha Cottrell,	Wabaunsee, Wabaunsee.
Sarah Esther Cottrell,	Wabaunsee, Wabaunsee.
Ernest Brown Coulson,	Anthony, Harper.
Alverta May Cress,	Manhattan, Riley.
Fannie Jane Cress,	Steubenville, *Ohio.*
Cyrus S. Criswell,	Manhattan, Riley.
Elsie Emmeline Crump,	Manhattan, Riley.
David Thomas Davies,	Manhattan, Riley.
Daisy Day,	Manhattan, Riley.
Lillie C. Dial,	Cleburne, Riley.
Ernest A. Donaven,	Agra, Phillips.
Jephthah W. Evans,	Manhattan, Riley.
George Forsyth,	Howard, Elk.
Isabella Russell Frisbie,	Manhattan, Riley.
Eugene Leonard Frowe,	Louisville, Pottawatomie.

Name.	*Post Office and County.*
Walter Harling,	Manhattan, Riley.
Mary Eliza Haulenbeck,	Manhattan, Riley.
Blanche Etta Hayes,	Manhattan, Riley.
Lorena Marguerite Helder,	Manhattan, Riley.
Mark V. Hester,	Haviland, Kiowa.
Abram Johnson,	Melvern, Osage.
John James Johnson, jr.,	Success, Russell.
Samuel B. Johnson,	Melvern, Osage.
Fred Ralph Jolly,	Manhattan, Riley.
Isaac Jones, jr.,	Ada, Lincoln.
William Irvin Joss,	Fairview, Brown.
Stella Victoria Kimball,	Manhattan, Riley.
Robert McIntosh Laundy,	Wreford, Geary.
Mary Eliza Lyman,	Manhattan, Riley.
William Henry Moore,	Manhattan, Riley.
Sarah Moore,	Gardner, Johnson.
Elizabeth Morrison,	Arispie, Pottawatomie.
Theo. Wattles Morse,	Mound City, Linn.
James Francis Odle,	Rossville, Shawnee.
Oscar Albert Otten,	Brenner, Doniphan.
Ida Rebecca Pape,	Topeka, Shawnee.
Maude Helen Parker.	Manhattan, Riley.
Charles Randolph Pearson,	Collyer, Trego.
Katharine Hall Pierce,	Winfield, *Iowa.*
Horace Greeley Pope,	Manhattan, Riley.
Ada Rice,	Manhattan, Riley.
Minnie Louisa Romick,	Manhattan, Riley.
Winnie Luella Romick,	Manhattan, Riley.
Victor Irvin Sandt,	Alden, Rice.
John Alfred Scheel,	Emporia, Lyon.
Jacob Ulrich Secrest.	Randolph, Riley.
Charles Baxter Selby,	Manhattan, Riley.
Charles Chrisfield Smith,	Manhattan, Riley.
Jennie Ruth Smith,	Manhattan, Riley.
Thomas H. Smyth,	Beloit, Mitchell.
Wesley O. Staver,	Dallas, *Missouri.*
William Henry Steuart,	Winchester, Jefferson.
John Stingley,	Manhattan, Riley.
Dora Thompson,	Irving, Marshall.
Delbert Timbers,	Beloit, Mitchell.
Samuel R. Vincent,	Argonia, Sumner.
Lawrence A. Waters,	Junction City, Geary.
John Melancthon Williams,	Edgerton, Johnson.

SECOND YEAR.

Carl D. Adams,	Osawkie, Jefferson.
Deane Collier Arnold,	Louisville, Pottawatomie.
Asa William Barnard,	Manhattan, Riley.
Robert John Barnett,	Denison, Jackson.

Name.	*Post Office and County.*
Franklin Fairbanks Baxter,	Manhattan, Riley.
Arthur Denman Benson,	Colfax, *Illinois.*
Arthur Wiltshire Brewer,	Manhattan, Riley.
Fred. Broadbent,	Erie, Neosho.
Bert Mills Brown,	Fall River, Greenwood.
William Edward Bryan,	Centralia, Nemaha.
Con Morrison Buck,	Oskaloosa, Jefferson.
Walter Emmet Butler,	Albuquerque, *New Mexico.*
James Marion Calhoun,	New Murdock, Kingman.
Plummer Carnahan,	Centralia, Nemaha.
Frank E. Cheadle,	Enon, Barber.
Marshall Chandler,	Argentine, Wyandotte.
William Arthur Coe,	Coloma, Woodson.
Burton Wesley Conrad,	Capioma, Nemaha.
Florence Ruth Corbett,	Manhattan, Riley.
Sid H. Creager,	Jamestown, Republic.
Alexis Craine Cutler,	Wabaunsee, Wabaunsee.
Frank Andrew Dawley,	Vincent, Osborne.
Flora Day,	Manhattan, Riley.
George Adam Dean,	Topeka, Shawnee.
Charles Sumner Dearborn,	Silver Lake, Shawnee.
George Henry Dial,	Cleburne, Riley.
John Dougherty,	Manhattan, Riley.
Victor Emrick,	Lone Tree, *Missouri.*
Robert Kilby Farrar,	Axtell, Marshall.
Edwin Roy Farwell,	Osborne, Osborne.
Josephine Finley,	Manhattan, Riley.
Mary Finley,	Manhattan, Riley.
Ernest Harrison Freeman,	North Topeka, Shawnee.
Joanna Freeman,	Manhattan, Riley.
Arthur Lorenzo Frowe,	Louisville, Pottawatomie.
John Garret,	Centropolis, Franklin.
Elmer George Gibson,	Topeka, Shawnee.
Bert Waldron Green,	Manhattan, Riley.
Charles Shepard Green,	Manhattan, Riley.
Ellen Aurora Halstead,	Leonardville, Riley.
Walter Eugene Hardy,	Manhattan, Riley.
Myrtle Mary Harner,	Lasita, Riley.
Elizabeth Lynn Hartley,	Manhattan, Riley.
Lawrence Wilbur Hayes,	Manhattan, Riley.
Winfred Francis Hecox,	La Junta, *Colorado.*
Olga Dagmar Huber,	Meriden, Jefferson.
Christian Andrick Johnson,	Success, Russell.
Susan Effie Johnson,	Success, Russell.
Marian Elizabeth Jones,	Manhattan, Riley.
Thomas Lormar Jones,	Manhattan, Riley.
Maud Estella Kennet,	Silver Lake, Shawnee.
Fred. Linton Kinsey,	Crow, Phillips.
Mark Kirkpatrick,	Fredonia, Wilson.
Cortes Dawson Lesley,	Culver, Ottawa.
Myron Arthur Limbocker,	Manhattan, Riley.

Name.	*Post Office and County.*
Eugene Marshall,	Manhattan, Riley.
Samuel Alexander McDowell,	Manhattan, Riley.
Laura Sarah McKeen,	Manhattan, Riley.
Ward Cadwell Mead,	Maple City, Cowley.
James Edward Mercer,	Topeka, Shawnee.
Charles Milton Morgan,	Manhattan, Riley.
George Merrick Munger,	Eureka, Greenwood.
John Bitting Smith Norton,	White City, Morris.
Lillian Oldham,	Keats, Riley.
William Hackworth Painter,	Meade, Meade.
Elva Luthera Palmer,	Clifton, Clay.
Nellie M. Palmer,	Burlingame, Osage.
Charles Wesley Pape,	Topeka, Shawnee.
Ethel Patton,	Silver Lake, Shawnee.
John Vernon Patton,	Silver Lake, Shawnee.
Clarence Herbert Paul,	Waterville, Marshall.
Archie Carpenter Peck,	Big Valley, *Texas.*
Campbell Kenedy Peck,	Junction City, Geary.
Russell John Peck,	Big Valley, *Texas.*
Will Oscar Peterson,	Randolph, Riley.
William H. Phipps,	Chapman, Dickinson.
Charles Stephens Pope,	Cawker City, Mitchell.
Edgar Arthur Powell,	Osage City, Osage.
John Purcell,	Manhattan, Riley.
Alice Julia Quintard,	Silver Lake, Shawnee.
Maude Myrtle Quintard,	Silver Lake, Shawnee.
Ralph Waldo Rader,	Manhattan, Riley.
Ambrose Elliott Ridenour,	Manhattan, Riley.
Isaac Archie Robertson,	Manhattan, Riley.
Jennie Myrtle Romick,	Manhattan, Riley.
Benjamin Franklin Simeon Royer,	Sterling, Rice.
Gertrude Werden Shofe,	Manhattan, Riley.
Charles Ellsworth Shoup,	Russell, Russell.
Charles Wesley Shull,	Manhattan, Riley.
Asa Smith,	Osborne, Osborne.
Etta Smith,	Manhattan, Riley.
Frederick John Smith,	Iwacura, Clay.
Kitty Myrtle Smith,	Manhattan, Riley.
Carl Snyder,	Oskaloosa, Jefferson.
Bertha Julia Spohr,	Manhattan, Riley.
Bertha Anora Steele,	Minneapolis, Ottawa.
Anna Louise Stingley,	Manhattan, Riley.
Sadie Stingley,	Manhattan, Riley.
Fairy Strong,	Manhattan, Riley.
Cora Idella Stump,	Manhattan, Riley.
Miriam Esther Swingle,	Manhattan, Riley.
Frances Eleanor Thackrey,	Manhattan, Riley.
Martha E. Toothaker,	Kansas City, Wyandotte.
Elven Creveling Trembly,	Council Grove, Morris.
Corinne Tucker,	Clinton, Douglas.
Herbert Theron Van Patten,	Centralia, Nemaha.

Name.	*Post Office and County.*
Edwin H. Webster,	Yates Center, Woodson.
Olive Mabel Wilson,	Austin, *Illinois.*
Ora Gertrude Yenawine,	Manhattan, Riley.
Frank Yeoman,	La Crosse, Rush.

FIRST YEAR.

Emma Elizabeth Adams,	Manhattan, Riley.
Francis Marion Aiman,	Manhattan, Riley.
John Andrew Amnell,	Randolph, Riley.
Ida Anderson,	Alta Vista, Wabaunsee.
Arthur Smith Atkinson,	La Junta, *Colorado.*
Charles Antoine Bailey,	La Crosse, Rush.
Elsie Baird,	Dodge City, Ford.
Harry Hurst Banker,	Kuhnbrook, Marion.
John Andrew Banker,	Kuhnbrook, Marion.
Myrtle Baumgart,	North Cedar, Jefferson.
Ada Mae Baxter,	Myers Valley, Pottawatomie.
Agnes Baxter,	Myers Valley, Pottawatomie.
Jessie G. Bayless,	Yates Center, Woodson.
James Cameron Bayless,	Melvern, Osage.
Charles Henry Bell,	Greenleaf, Washington.
Roy J. Bell,	Yates Center, Woodson.
Otto Bentz,	Riley, Riley.
Lulu Pearl Berkshire,	Elmdale, Chase.
Walter S. Berkshire,	Elmdale, Chase.
Albert Gustavus Bittman,	Louisville, Pottawatomie.
Anna Blyth,	Keats, Riley.
Albert Booth,	Grand Summit, Cowley.
May Haines Bowen,	Manhattan, Riley.
Alie Robert Bradshaw,	Hoyt, Jackson.
John Henderson Braum,	Denison, Jackson.
McLeod Braum,	Denison, Jackson.
Sherman George Britton,	Section, Coffey.
Claude Milo Brobst,	Osborne, Osborne.
Rollins Foster Buck,	Big Springs, Douglas.
Ira Olen Butts,	Yates Center, Woodson.
Clyde Farley Caldwell,	Scandia, Republic.
Margaret Isaphene Carleton,	Scottsville, Mitchell.
Mary Frances Carnell,	Bunker Hill, Russell.
Samuel Stearson Cassidy,	Beattie, Marshall.
William Annesley Cavenaugh,	Ft. Supply, *Indian Territory.*
Clarence Asa Chandler,	Argentine, Wyandotte.
Sophronia Dell Channel,	Chalk Mound, Wabaunsee.
William Burns Chase,	Hoyt, Jackson.
Ella Clark,	Manhattan, Riley.
William Noah Coffey,	Manhattan, (Pottawatomie.)
Banner Stewart Coleman,	Menoken, Shawnee.
Harry Leonard Coleman,	Menoken, Shawnee.
Thadeus Colyer,	Millwood, Leavenworth.

Name.	*Post Office and County.*
Thomas Henry Coman,	Scammonville, Cherokee.
Laura Viola Condray,	Manhattan, Riley.
William George Cooper,	Russell, Russell.
Minnie Laura Copeland,	Quenemo, Osage.
Maggie A. Correll,	Overbrook, Osage.
Willett Ranson Correll.	Overbrook, Osage.
Charlotte Mabel Cotton,	Wabaunsee, Wabaunsee.
Myrtle Evelyn Coulman,	Alta Vista, Wabaunsee.
Charles Ferdinand Curs,	Waterville, Marshall.
Ora L. Davisson,	Montrose, Jewell.
Mrs. Dora Ann Dawson,	Yates Center, Woodson.
Elizabeth Denton,	Cleburne. Riley.
Fred Volley Dial,	Cleburne. Riley.
George McCutcheon Dick,	Ellsworth, Ellsworth.
Robert Peter Dickson,	Fulton, Jackson.
Charles Francis Doane,	Louisville, Pottawatomie.
Frank Burton Dodds,	Idana, Clay.
Leanna Mabelle Dodge,	Manhattan, Riley.
Christopher Dolby,	Athelstane, Clay.
Samuel Dolby,	Ashelstane, Clay.
Edgar Terry Doom,	Manhattan, Riley.
John Berthold Dorman,	Manhattan, Riley.
Bradford Dougherty,	Kansas City, Wyandotte.
Harvey Tom Doyle,	Leonardville, Riley.
Della Drollinger,	Garrison, Pottawatomie.
Lillie Eakin,	Manhattan, Riley.
Anna Laura Edwards,	Burdick, Morris.
Marshall Columbus Edwards.	Vinton, Cowley.
Edwin Amos Eggleston,	El Reno, *Oklahoma Territory.*
James Riley Eichar,	Oakland, Shawnee.
Alonzo Lawrence Eidson,	West Plains, Meade.
James Hardy Elem,	Burrton, Harvey.
Bronta Elmer Ellis,	Grand Summit, Cowley.
Eugene Emrick,	Lone Tree, *Missouri.*
Agnes Helen Esdon,	Olsburg, Pottawatomie.
Harriet Maria Esdon,	Olsburg, Pottawatomie.
Charles Silas Evans,	Denison, Jackson.
Alma Rebecca Eyster,	Barnes, Washington.
Don Scott Farman,	Manhattan, Riley.
Mabel Nancy Farwell,	Osborne, Osborne.
William H. Fay,	Portis, Smith.
Jesse Martin Fengel.	Woodbine. Dickinson.
Marquis C. Findley,	Morland, Graham.
Emma Susan Finley,	Manhattan, Riley.
Frederick Edward Finley,	Parallel, Washington.
George William Finley,	Manhattan, Riley.
James Webster Finley,	Goodland, Sherman.
Minnie Charlotte Finley,	Parallel, Washington.
Antonette Ella Fisher,	Manhattan, Riley.
Howard Irwin Floyd,	McCracken, Rush.
Rollie Randle Forsyth,	Carbondale, Osage.

Name.	*Post Office and County.*
Walter Scott Forsyth.	Carbondale, Osage.
Martha Fox,	Manhattan, Riley.
Philip Fox,	Manhattan, Riley.
Alexander J. Fraser,	Peabody, Marion.
Edward Milton Frowe,	Louisville, Pottawatomie.
John Jacob Fryhofer,	Randolph, Riley.
August E. Fuhlhage,	Myra, Woodson.
Harris Rishel Gilbert,	Lincolnville, Marion.
Claud Marion Gilleece,	Denison, Jackson.
Allie Gilliford,	Olsburg, Pottawatomie.
Andrew Burt Ginter,	Valley Falls, Jefferson.
Morris Hopper Ginter,	Valley Falls, Jefferson.
George McClung Green,	Manhattan, Riley.
Ned Merrill Green,	Manhattan, Riley.
Charles D. Griffee,	Alden, Rice.
Ralph Edson Grimes,	Byron, Woodson.
George Caleb Grisier,	Yates Center, Woodson.
Anna Winter Hall,	Manhattan, Riley.
George Clifton Hall,	Hoyt, Jackson.
William Logan Hall,	Anthony, Harper.
John George Haney,	Courtland, Republic.
Rose Hardy,	Manhattan, Riley.
Florence Harling,	Manhattan, Riley.
Helen Harrison,	Manhattan, Riley.
Ephraim J. Hartzler,	Goodland, Sherman.
Nannie Elizabeth Hartzler,	Goodland, Sherman.
James Madison Harvey, jr.,	Junction City, Geary.
Alonzo Charles Havens,	Dwight, Morris.
Gertrude Julia Havens.	Dwight, Morris.
Edmond Hays,	Osborne, Osborne.
Reuben William Henney,	Sabetha, Nemaha.
Lottie Elizabeth Henry.	Lincoln, Lincoln.
Clarence Hepler,	Manhattan, Riley.
John Morris Hibner,	Riley, Riley.
Maggie Eva Hibner,	Leonardville, Riley.
William Samuel Hiestand,	Yates Center, Woodson.
Forrest Hill,	Emporia, Lyon.
Henry Covel Holderman,	Chetopa, (*Indian Territory.*)
Cage Holford,	Manhattan, Riley.
John Warren Holland.	Cokeville, *Wyoming.*
Louis Pettigrew Holland,	Garden Plains, Sedgwick.
Ina Emma Holroyd,	Manhattan, Riley.
Clarence Franklin Hood,	Manhattan, Riley.
Myrtle Hattie Hood,	Manhattan, Riley.
Mabel Clair Hooker,	Manhattan, Riley.
Charles Henry Hoop,	Manhattan, Riley.
Stella May Hougham.	Manhattan, Riley.
Edward Leonard Hougham,	Manhattan, Riley.
Winifred Anna Houghton,	Manhattan, Riley.
Ralph John Wesley Howard,	Manhattan, Riley.
Carrie Elva Hoyt,	Bennington, Ottawa.

Name.	*Post Office and County.*
Bret Redmon Hull,	Alta Vista, Wabaunsee.
John A. Hunter,	Eskridge, Wabaunsee.
Lena Bertha Jackson,	Garrison, Pottawatomie.
Lula Maud Jackson,	Garrison, Pottawatomie.
Emma Jacobs,	Monterey, Riley.
Annie Laurie James,	Wagoner, *Indian Territory.*
Charles Edward John,	Grand Summit, Cowley.
Carrie Grace Johnson,	Myers Valley, Pottawatomie.
Henry George Johnson,	Assaria, Saline.
Edward Clarence Joss,	Fairview, Brown.
Olive Jane Kearns,	Manhattan, Riley.
Royal S. Kellogg,	Fay, Russell.
Orlin Sereno Kenyon,	Concordia, Cloud.
Richard Beaver Kerr,	Salina, Saline.
John Milton Kimball,	Manhattan, Riley.
Udah Sheldon King,	Vinland, Douglas.
Byron Kirkpatrick,	Fredonia, Wilson.
Charles Roland Kistler,	Waterville, Marshall.
Carl Klemp,	Topeka, Shawnee.
Christy Breniser Knox,	Manhattan, Riley.
Charles Herbert Lantz,	Manhattan, Riley.
Edith Lynnette Lantz,	Manhattan, Riley.
John Edward Larrick,	Logan, Phillips.
Daniel Seward La Shelle,	Chepstow, Washington.
Francis Lawlor,	Wakarusa, Shawnee.
Hilda Margaret Leicester,	Manhattan, Riley.
Charles E. Lewis,	Yates Center, Woodson.
Samuel Herbert Little,	Utopia, Greenwood.
Flora Estella Livings,	Manhattan, Riley.
Owsley Lonergan,	Marysville, Marshall.
Susie Long,	Manhattan, Riley.
Charles Willard Longenecker,	Paola, Miami.
John Alexander Lovett,	Crescent, Kiowa.
Charles W. Lyman,	Manhattan, Riley.
Clifford Lyon,	Sabetha, Nemaha.
Dora W. Maas,	Alma, Wabaunsee.
August Fred. Mangelsdorf,	Atchison, Atchison.
Charles Sumner Marty,	Glenn, Johnson.
Charles Matter,	Manhattan, Riley.
Josie McCandless,	Hutchinson, Reno.
J. Park McCandless,	Cottonwood Falls, Chase.
Albert Wilbore McClurkin,	Clay Centre, Clay.
Elvin Harvey McClurkin,	Clay Centre, Clay.
Frank Everett McCord,	Manhattan, Riley.
William Andrew McCullough,	Delavan, Morris.
Nannie Catherine McCullough,	Delavan, Morris.
William Dio McPhee,	Anthony, Harper.
Bert Ulysses Medaris,	Manhattan, Riley.
Winfred Medaris,	Manhattan, Riley
Frederick Hugo Meyer,	Menager, Wyandotte.
Clement Studebaker Milburn,	Merriam, Johnson.

Name.	*Post Office and County.*
Charles Clifton Miller,	Athelstane, Clay.
Harvey Robert Miller,	Wabaunsee, Wabaunsee.
John D. Miller,	Athelstane, Clay.
William S. Miller,	Anthony, Harper.
Jessie Minis,	Manhattan, Riley.
James Spauldine Monahan,	Manhattan, Riley.
Bernard Orlando Moore,	Irving, Marshall.
Mrs. Elda Lenore Moore,	Manhattan, Riley.
William Moore,	Brookville, Saline.
Arthur H. Morgan,	Hillside, Phillips.
Melvin Louis Morgan,	Argentine, Wyandotte.
James Morris,	Wetmore, Nemaha.
William Mueller,	Lanham, *Nebraska.*
Clarence Lea Myers,	Holton, Jackson.
Maud Anna Naylor,	Alta Vista, Wabaunsee.
Esther Malvina Nelson,	Bennington, Ottawa.
Louis Anthony Nelson,	Marysville, Marshall.
Clara Verena Newell,	Manhattan, Riley.
Sherman Bodwell Newman,	Zeandale, Riley.
Orien James Newlin,	Coldwater, Comanche.
Hans Peter Nielson,	Denmark, Lincoln.
Ella Nixon,	Manhattan, Riley.
Olive Esra Noble,	Riley, Riley.
Guy Brunaugh Norris,	Garden City, Finney.
Ellen Elizabeth Norton,	White City, Morris.
Mary Augusta Norton,	White City, Morris.
Ella Myrtle Noyes,	Wabaunsee, Wabaunsee.
Bertha Olivia Olson,	Manhattan, Riley.
George O'Niell,	Milo, Lincoln.
Jesse Landes Overholser,	Russell, Russell.
Albert Alden Paige,	Manhattan, Riley.
Mary Kerrilli Painter,	Meade, Meade.
Mabel Palmer,	Burlingame, Osage.
Nellie Christena Palmer,	Burlingame, Osage.
Fannie Parkinson,	Pomona, Franklin.
Gale Partridge,	Sabetha, Nemaha.
Llola Idela Patterson,	Manhattan, Riley.
John Henry Payne,	Burrton, Harvey.
Clara Jane Pender,	Pueblo, *Colorado.*
Arthur Lewis Peter,	Oakland, Shawnee.
Hans Christian Peterson,	Greenleaf, Washington.
Emma Frances Phelps,	Briggs, Geary.
Eva Louise Philbrook,	Chepstow, Washington.
Rufus M. Philbrook,	Chepstow, Washington.
William Erastus Phillips,	Capioma, Nemaha.
Alexander Calvin Pike,	Westmoreland, Pottawatomie.
Charles Edwin Pincomb,	Glenn, Johnson.
Mary Josephine Pincomb,	Glenn, Johnson.
J. Arthur Plowman,	Jewell City, Jewell.
Edna Alice Pollom,	Louisville, Pottawatomie.
John Poole,	Briggs, Geary.

Name.	*Post Office and County.*
Willis Thomas Pope.	Lincolnville, Marion.
Ernest Poston,	Netawaka, Jackson.
George Orlin Potts,	Ada, Ottawa.
Mary B. Pritner,	Grant, Riley.
Lisle Willetts Pursel,	Columbus, Cherokee.
Annie Elizabeth Putnam,	Athelstane, Clay.
Llewellyn Victor Putnam,	Athelstane, Clay.
Hiram Mater Rasmussen,	Morganville, Clay.
Charles Duncan Rees,	Delphos, Ottawa.
May Bell Rehfeld,	Manhattan, Riley.
Benjamin Perry Remy,	Manhattan, Riley.
Joe Reyburn,	Leavenworth, Leavenworth.
Leah Reyburn,	Leavenworth, Leavenworth.
Howard Newton Rhodes,	Manhattan, Riley.
Abba Rice,	Manhattan, Riley.
Carl Rice,	Manhattan, Riley.
John Henry Rice,	Manhattan, Riley.
Frank Ledgedwood Richardson,	Grand Summit, Cowley.
Falix Reinhold Richter,	Oskaloosa, Jefferson.
Jennie Florence Ridenour,	Manhattan, Riley.
John Beach Ridenour,	Snyder, Ford.
Mary Etta Ridenour,	Manhattan, Riley.
Lettie Edith Rigney,	Manhattan, Riley.
Stanley Robbins,	White City, Morris.
Norman S. Roberts,	Manhattan, Riley.
Thomas Mead Robertson,	Manhattan, Riley.
Homer Joseph Robison.	Yates Center, Woodson.
Harry Clark Rogers,	Randall, Jewell.
Pearl Albro Rogers,	Burlingame, Osage.
Fred. Rowland,	Eskridge, Wabaunsee.
Fritz Rummel,	Hartford, Lyon.
Milton Edgar Sargent,	Riley, Riley.
Daniel T. Schorer,	Morganville, Clay.
Grace Anna Secrest,	Randolph, Riley.
William Haskell Serviss.	Kansas City, Wyandotte.
James Marshall Shearer.	Frankfort, Marshall.
Stella Alice Shippen,	Pence City, Scott.
Alice Myrtle Shofe,	Manhattan, Riley.
Benjamin Franklin Shonyo,	Bushton, Rice.
Emma Elmira Shull,	Manhattan, Riley.
Corydon Allen Sigman.	Manhattan, Riley.
Ida Maud Sisco,	Waterville, Marshall.
Alfred Caleb Smith,	Manhattan, Riley.
Bruce Smith,	Niles, Ottawa.
Edwin Lee Smith,	Manhattan, Riley.
Frank Eldon Smith,	Bloomington, Osborne.
Oliver Russell Smith,	Manhattan, Riley.
Phœbe Jane Smith,	Manhattan, Riley.
Valdo Smith,	Manhattan, Riley.
Max Gilbert Spalding.	Eureka, Greenwood.

Name.	*Post Office and County.*
Louise Mary Spohr,	Manhattan, Riley.
Eva Electa Staley,	Oklaunion, *Texas.*
Carrie Jane Staver,	Dallas, *Missouri.*
Daniel Morgan Steele,	Dallas, *Missouri.*
Orville Ashford Stingley,	Manhattan, Riley.
Charles Harrison Stokely,	Burlingame, Osage.
Charles Leslie Straight,	Bennington, Ottawa.
Gertrude Ella Stump,	Manhattan, Riley.
Andrew B. Symns,	Brenner, Doniphan.
Cora Gertrude Thackrey,	Manhattan, Riley.
Henry Marsden Thomas,	Melvern, Osage.
John Zachariah Thomas,	Melvern, Osage.
Louis James Thompson,	Garden Plains, Sedgwick.
Emma Tidler,	Olsburg, Pottawatomie.
Charles Madison Tissue,	Partridge, Reno.
James Gillis Tomson,	Dover, Shawnee.
Wilbur Sewall Trader,	Manhattan, Riley.
James Dunbar Trumbull,	Manhattan, Riley.
Elizabeth C. Tunnell,	Wichita, Sedgwick.
Frank Edwin Uhl,	Gardner, Johnson.
Charles Thomas Vale.	Alton, Osborne.
Mattie M. Vale,	Alton, Osborne.
Ada Van Gaasbeck,	Alta Vista, Wabaunsee.
Thomas P. Van Orsdal,	Silver Lake, Shawnee.
Bert Winfred Vickery,	Waterville, Marshall.
Bessie Voiles,	Manhattan, Riley.
Hilda Walters,	Manhattan, Riley.
Lucy Ward,	Wetmore, Nemaha.
Gertie May Warner,	Upper Sandusky, *Ohio.*
Elsie L. Waters,	Weston, Geary.
John Minton Westgate,	Westgate, Geary.
Ira Lee Westover,	Formosa, Jewell.
Willard Whitford,	Manhattan, Riley.
Elmer Wiant,	North Topeka, Shawnee.
Louise Clara Weist,	Manhattan, Riley.
Virgil Franklin Winslow,	Wakefield, Clay.
John Wootton,	Toronto, Woodson.
James M. Wright,	Denison, Jackson.
Mary Alice Wright,	Denison, Jackson.
Courtland Voorhees Wyckoff,	Wyckoff, Lyon.
Albert August Yousse,	Colby, Thomas.
Frederick Zimmerman,	East Norway, Doniphan.

SUMMARY.

	Gentlemen.	*Ladies.*	*Total.*
Post graduate	14	15	29
Fourth year	28	15	43
Third year	41	25	66
Second year	75	35	110
First year	228	111	339
Totals	386	201	587

From 68 counties of Kansas, 555.
From 16 other States, 32.
Applicants not enrolled, 14.

Objects and Methods.

THE ENDOWMENT AND RESOURCES.

An act of Congress approved July 2, 1862, gave to each State public lands to the amount of 30,000 acres for each of the Senators and Representatives in Congress according to the census of 1860, for the "endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Under this act, the State of Kansas received 82,313.53 acres of land, and, in 1863, established the State Agricultural College, by endowing with these lands Bluemont College, which had been erected two miles from Manhattan, under the auspices of the M. E. Church, but was presented to the State for the purpose named in the act of Congress.

In 1873, the College was reorganized upon a thoroughly industrial basis, with prominence given to practical agriculture and related sciences; and in 1875 the furniture and apparatus of the College were moved to the farm of 219 acres, one mile from the city of Manhattan. On this fine location the State has provided buildings valued at $135,000, and has this year increased such provision by $74,000, making the total amount invested in buildings about $210,000; of these a description is given elsewhere. The farm and grounds, furniture, stock, and other illustrative apparatus, are valued at $150,000. The present value of buildings, grounds, apparatus, etc., is almost exactly equal to the sum of all appropriations by the State. All the lands have been sold, giving a fund of $502,927.35, which is by law invested in bonds, the interest alone being used for the current expenses of the College.

The annual income from the endowment fund—about $30,000—is supplemented by an appropriation under an act of Congress approved August 30, 1890, of $15,000 for 1890, $16,000 for 1891, $17,000 for 1892, and a sum increasing each year by $1,000 until the annual amount shall be $25,000. This fund is "to be applied only to instruction in agriculture, the mechanic arts, and the English language, and the various branches of mathematical, physical, natural and economic science, with special reference to their application in the industries of life, and to the facilities for such instruction." "No portion of said moneys shall be applied directly or indirectly, under any

KANSAS STATE AGRICULTURAL COLLEGE. (General View.)

pretense whatever, to the purchase, erection, preservation or repair of any building or buildings."

All expense of instruction is thus provided for, and the State is left to erect and maintain the necessary buildings and meet expenses in management of the funds.

Under an act of Congress approved March 7, 1887, the College receives, by general appropriation in Congress, $15,000 each year for the maintenance of an Experiment Station, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The property of the Station, including a building erected especially for its use, amounts to more than $10,500.

OBJECTS.

This College now accomplishes the objects of its endowment in several ways

First, It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

Second, It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, botany, entomology, zoölogy and mechanics are made prominent means of education to quick observation and accurate judgment. Careful study of the minerals, plants and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering and household economy show the application of science; and all are enforced by actual experiment.

Third, It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm and household departments is made a part of a general education to usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth, It strives to increase our experimental knowledge of agriculture and horticulture. The provision for extensive and accurate researches, made by establishing the Experiment Station as a distinct department of the College, offers assurance of more definite results than can be obtained by ordinary methods. The Professors of Agriculture, Horticulture, Chemistry, Botany, and Veterinary Science, together with the President of the College, form the Experiment Station Council, by authority of which experiments are undertaken and carried on in the several departments, under the special supervision of the professors. These touch "the physiology of plants and animals; the diseases to which they are severally subject, with remedies for the same; the chemical composition of useful plants at their different stages of

growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable."

The bulletins of the Station, issued at least as often as once in three months, are sent, according to law, free of postage, to all newspapers in the State, and "to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." Correspondence with reference to bulletins and experiments is welcomed, and may be addressed to the several members of the Council.

Fifth, It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in more than 40 counties of the State, in which from two to four members of the Faculty share with the people in lectures, essays and discussions upon topics of most interest to farmers and their families. These institutes, held for the past 12 years, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. The members of the Faculty desire correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences. The *Industrialist*, published weekly, and edited by Faculty and students, gives a wide circulation to matters of similar interest in the College.

To serve a similar end, a course of 30 lectures is given at the College during two weeks in February of each year, to which farmers from all parts of the State are invited. Members of the Faculty are also prominently connected with State associations for the promotion of agriculture, horticulture, the natural sciences, and education in general.

COURSE OF STUDY.

The necessity for so adjusting various branches of a course of study that there shall be as little waste as possible in acquiring both information and discipline, is felt by every teacher. Such a course is not designed to be absolutely inflexible, but to guide the judgment into some definite line of progress from which no mere whim shall turn a student aside.

Each student is expected to take three studies, besides one hour's daily practice in an industrial art; and variations from this rule can be made only with the consent of the Faculty.

Parallel courses are offered to both sexes, with such differences as their ne-

STUDENTS AT WORK IN THE GARDENS.

cessities seem to call for. The following gives the general scope of the two, but fuller explanations are found under "Outline of Instruction:"

FIRST YEAR.

Fall Term.....Algebra.
English Analysis.
Geometrical Drawing.
Industrial..

Winter Term..Algebra.
English Composition.
Bookkeeping.
Free-hand Drawing three times a week.
Industrial.

Spring Term...Algebra.
English Structure.
Botany.
Industrial.

SECOND YEAR.

Fall Term.....Geometry.
Elementary Chemistry.
Horticulture.
Industrial.

Winter Term..Geometry completed, Projection Drawing.
Agriculture, for young men.
Household Economy, for young women.
Organic Chemistry and Mineralogy.
Twelve Lectures in Military Science.
Industrial.

Spring Term...Anatomy and Physiology.
Entomology.
Analytical Chemistry.
Twenty Lectures in Military Science.
Industrial.

THIRD YEAR.

Fall Term.....Trigonometry and Surveying.
Agricultural Chemistry.
General History.
Industrial.

Winter Term..Mechanics.
Political History and Civil Government.
Rhetoric.
Industrial.

Spring Term...Civil Engineering, for young men.
Hygiene, for young women.
Physics.
English Literature.
Perspective Drawing two hours a week; Drafting two hours.
Industrial.

FOURTH YEAR.

Fall Term.....Agriculture, for young men.
Literature, for young women.
Physics and Meteorology.
Psychology.
Industrial.

Winter Term..Logic, Deductive and Inductive.
Zoölogy.
Structural Botany.
Veterinary Science, for young men.
Floriculture, for young women.
Industrial.

Spring Term...Geology.
Political Economy.
An elective in Agriculture, Horticulture, Mechanics, or related sciences.
Industrial.

INDUSTRIAL TRAINING.

Closely adjusted to the course of study is industrial training in several of the arts, to which each student is required to devote at least one hour a day. Among the lines of training each student may select, with the approval of the Faculty, except in terms when special industrials are required. Young men may have farming, gardening and fruit growing, woodwork and ironwork, or printing. Young women may take cooking, sewing, printing, floriculture, or music.

All young men must have their industrials for one term in the carpenter shop before completing the first year; and during the spring term of the second and the fall term of the third year, upon the farm, garden, and orchards. Young women take their industrial for one term of the first year in sewing, and for the winter and spring terms of the second year in the kitchen laboratory and dairy.

THE DAILY ROUTINE

requires chapel at 8:30 A.M., and classes from 8:50 A.M. to 1 P.M., as shown under "Class Hours." Class rhetorical exercises are held weekly. Military drill is twice a week. On every Friday afternoon, at 1:30, all attend the public lecture or rhetorical exercises in chapel.

SPECIAL COURSES.

Persons of suitable age or advancement who desire to pursue such branches of study as are most directly related to agriculture or other industries may select such studies under the advice of the Faculty. Assaying may be provided for by special arrangement, when students are qualified to pursue it.

IRON AND WOOD WORKSHOPS.

CLASS HOURS, 1893–'94.

	HRS.	SPECIAL CLASSES.			FIRST YEAR.				
FALL TERM. 14 weeks.	I.	Writing.	Drawing.	Industrial.	Algebra.	English Analysis.	Algebra.	Industrial.	Geometrical Drawing.
	II.	Industrial.		Geography.	English Analysis.	Algebra.	Industrial.	Geometrical Drawing.	English Analysis.
	III.	English.	Arithmetic.		Geometrical Drawing.	Industrial.		English Analysis.	Algebra.
	IV.		Industrial.	English.	Industrial.	Geometrical Drawing.	English Analysis.	Algebra.	Drill and Rhetoricals.
	V.	Arithmetic.	English.	Arithmetic.	Drill and Rhetoricals.	Drill and Rhetoricals.	Geometrical Drawing.	Drill and Rhetoricals.	Industrial.
WINTER TERM. 12 weeks.	I.	English.	Industrial.	Geometrical Drawing.	Free-hand Drawing.	Bookkeeping.	Industrial.	English Structure.	Algebra.
	II.		U. S. History.		Bookkeeping.	Industrial.	English Structure.	Algebra.	Free-hand Drawing.
	III.	Industrial.	Arithmetic.	Algebra.	Industrial.	English Composition.	Algebra.	Free-hand Drawing.	Bookkeeping.
	IV.	Writing.	English Grammar.	Industrial.	English Structure.	Algebra.	Free-hand Drawing. Drill.	Bookkeeping.	English Composition.
	V.	Arithmetic.		English Analysis.	Algebra.	Free-hand Drawing. Drill.	Bookkeeping.	Industrial.	Industrial.
SPRING TERM. 11 weeks.	I.	Industrial.	Arithmetic.	Algebra.	Free-hand Drawing.	Algebra.	Botany.	Industrial.	English Structure.
	II.		English.	Industrial.	Algebra.	Botany.	Industrial.	English Composition.	Algebra.
	III.	Arithmetic.	U. S. History.	Bookkeeping.	Industrial.	Industrial.	English Structure.	Algebra.	Botany.
	IV.	English.	Industrial.	English.	English.	English Composition.	Algebra.	Botany.	Industrial.
	V.	Writing.		Free-hand Drawing.	Drill and Rhetoricals.				

CLASS HOURS, 1893-'94—Continued.

	HRS.	SECOND YEAR.				THIRD YEAR.		FOURTH YEAR.	
FALL TERM. 14 weeks.	I.	Entomology.	Industrial.	Industrial.	Geometry.	Agricultural Chemistry.		Logic.	Industrial.
	II.	Chemistry.	Horticulture.	Geometry.	Industrial.	General History.	Trigonometry and Surveying.	Agriculture.	Literature.
	III.	Chemical Practice. Rhetoricals.	Geometry.	Chemistry.	Horticulture.	Trigonometry and Surveying.	Surveying Practice. Industrial.	Physics.	Psychology.
	IV.	Geometry.	Chemistry.	Entomology.	Chemical Practice. Rhetoricals. Drill.	Surveying Practice. Industrial.	General History.	Industrial.	Physics.
	V.	Industrial.	Chemical Practice. Rhetoricals.	Chemical Practice. Rhetoricals. Drill.	Chemistry.	Surveying Practice. Rhetoricals. Drill.		Rhetoricals.	
WINTER TERM. 12 weeks.	I.	Agriculture.	Physiology.	Household Economy.		Industrial.	Rhetoric.	Industrial.	Logic.
	II.	Organic Ch'mistry. Blowpipe.	Drawing. Geometry.	Blowpipe. Organic Ch'mistry.	Geometry. Drawing.	Rhetoric.	Mechanics.	Psychology.	Botany.
	III.	Industrial.	Organic Ch'mistry. Blowpipe.	Industrial.	Blowpipe. Organic Ch'mistry.	Mechanics.	Political History and Civics.	Zoölogy.	
	IV.	Drawing. Geometry.	Industrial. Mineralogy.	Geometry. Drawing.	Mineralogy. Industrial.	Political History and Civics.	Industrial.	Veterinary Science.	Floriculture.
	V.	Military Science. Mineralogy.	Military Science. Industrial.	Mineralogy. Military Science.	Industrial. Military Science.	Rhetoricals. Drill.	Rhetoricals. Drill.	Botany.	Industrial.
SPRING TERM. 11 weeks.	I.	Horticulture.	Agriculture.	Analytical Chemistry.		English Literature.	Industrial.	Political Economy.	
	II.	Physiology.	Entomology.			Engineering.	Hygiene.	U. S. Constitution.	
	III.	Analytical Chemistry.		Physiology.	Entomology.	Physics.	English Literature.	Geology.	
	IV.			Horticulture.	Physiology.	Drawing. Rhetoricals.	Physics.	Industrial.	
	V.	Military Science. Drill.		Dairying. Rhetoricals.		Industrial.	Drawing. Rhetoricals.	Rhetoricals. Drill.	

HORTICULTURAL HALL AND GREENHOUSE.

SHORT LECTURE COURSE FOR FARMERS.

Beginning on the first Tuesday of February each winter, a two-weeks course of lectures is given on agriculture and related arts and sciences. This is provided for those farmers and others who cannot take up the fuller work of the regular College classes. Members of the Faculty are assisted in delivering these lectures by prominent farmers, stock raisers and fruit growers of the State; and full discussions of the topics presented bring out the varied experiences of those attending. This course, during the winter of 1893, was attended by about 40 farmers.

POST-GRADUATE COURSES.

Arrangements can be made for advanced study in the several departments at any time, and outlines of courses will be furnished on application. Special opportunities for investigation and research will be afforded at all times to resident graduates in agriculture and agricultural chemistry, physics and chemistry, horticulture and botany, zoölogy and entomology, mathematics, engineering, and drafting. Every facility for advancement in the several arts taught at the College will be given such students, though they are not required to pursue industrial training while in these courses.

DEGREES.

The degree of BACHELOR OF SCIENCE is conferred upon students who complete the full course of four years and sustain all the examinations. This degree entitles the holder to credit for studies pursued in any application for State teacher's certificate. (See act of Legislature approved March 11, 1893.)

The degree of MASTER OF SCIENCE is conferred in course upon graduates who comply with the following conditions:

1. Each candidate shall furnish evidence satisfactory to the Faculty of proficiency in at least one of each of the groups of arts and sciences here named:

ARTS.	SCIENCES.
Agriculture.	Botany.
Horticulture.	Chemistry.
Engineering.	Zoölogy.
Architecture and Designing.	Entomology.
Domestic Economy.	Physics.

2. Each candidate must present for consideration by the Faculty a satisfactory thesis, involving original researches in line with one or the other of the courses pursued as above, and shall deposit a perfect copy in the College library.

3. Application to the Faculty for sanction of the lines of study and research selected should be made as early as the first day of November, and the subject of the thesis must be settled upon as soon as the first day of January preceding the Commencement at which the degree is expected.

4. Candidates must be from graduates of three or more years' standing, unless a post-graduate course of one year or more has been pursued at this

College, in which case the second degree may be conferred two years after graduation.

Outlines of direction for study and research in various arts and sciences, with special adaptation to the wants and opportunities of individual applicants, will be furnished, at request, to all graduates; and professors in charge will gladly aid by correspondence in any researches undertaken.

The degree of MASTER OF SCIENCE may be conferred upon the graduates of other colleges of like grade with our own, provided the applicant shall first satisfy the Faculty of his proficiency in the industrial studies distinctive of this institution, on the following conditions:

1. The applicant for the Master's degree must be a graduate of at least three years' standing, and a resident of Kansas.

2. His post-graduate study shall have been in line with that required of graduates of this College, as published in our catalogue.

3. He must make application for the degree on or before the first day of January preceding the granting of the same. The application must be accompanied with a statement of his course of study, the work upon which the claim for the degree is based, and the subject selected for his thesis.

4. By April 1 an abstract of the thesis must be submitted to the Faculty.

5. Before May 15 the applicant shall present himself for examination. The examination shall be thorough and extensive, and shall be conducted by a special committee of the Faculty.

OUTLINE OF INSTRUCTION.

Agriculture.

Second Year.—History of agriculture, showing the successive steps by which the art has attained its present position. History and characteristics of breeds: Their adaptation to the varying conditions of soil, climate, and situation; study of the forms of animals, as shown by the different breeds belonging to the College; the relation of stock raising to general farming. Cultivation of hoed crops; management of corn and roots with reference to stock feeding, and the growth of the finer grains. The growth of the tame grasses in Kansas: The best sorts for the State, and their management, as shown by experience upon the College farm and elsewhere. Implements of simple tillage: Mechanical principles involved in their construction. Application of labor. Draught: Different adjustments as affecting draught. Plows for soil and subsoil. Drainage: Soils that need drainage; how to lay out a system of drains.

Fourth Year.—General principles governing the development of domestic animals: The laws of hereditary disease—of normal, abnormal and acquired characters; atavism; correlation in the development of parts; in-and-in breeding and crossbreeding; influences affecting fecundity. The selection and arrangement of the farm with reference to the system to be pursued. Rotation of crops: General advantages of a rotation; the best rotation for the distribu-

STUDENTS JUDGING THE DAIRY CATTLE.

tion of labor, production of manure, and extermination of weeds. Planning farm buildings—barns, piggeries, and stables. Manure: How best housed and applied; composting; commercial fertilizers. Agricultural experiments; field and feeding experiments. Stock feeding and meat production: Stall feeding; soiling.

Horticulture.

It is the aim to teach this art from a botanical basis. The student applies his knowledge of the prime facts in botanical physiology to the various operations of the nursery, orchard, and farm. Instruction is given by a series of lectures upon the following topics, among others: The scope of horticulture. General principles of propagation—by buds, by seeds. Production of improved varieties—by careful selection of seeds, by interfertilization of known kinds. Perpetuation of valuable sorts of fruits by bud propagation—budding, grafting, layering, etc. The important points in nursery manipulation. The orchard: Conditions of site, soil, exposure, elevation; special treatment of different kinds of fruit trees; pruning; gathering and storing fruits. Small-fruit culture: List of varieties suitable for Kansas planting. Vegetable garden: Selection and preservation of seeds; planting and transplanting; the management and use of hotbed and cold frame. Forest plantations. Windbreaks. Hedges. Trees and shrubs for ornamental planting.

In the winter term of the fourth year, the young women study "Floriculture," the subject including general greenhouse management; the treatment of plants in window gardening, the growing of flowering plants in the open air, the destruction of plant pests, etc.; practice in the plant houses alternating with lectures on these topics.

Entomology.

This science is studied with special reference to its economic relations with agriculture and horticulture. A brief course in the principles of classification is followed by a more extended study of the life history of beneficial and injurious insects, and means for encouragement of the one and for control of the other.

The instruction is presented in the form of lectures. Illustrations are furnished from the individual collections of the students, and from the entomological collections belonging to the College. Charts and drawings from nature are used to illustrate points of value in classification. The pocket lens used in botany is required in this study.

Botany.

During the College course two terms are given to the study of botany.

Elementary Botany.—Instruction in this branch is given during the spring term of the first year. The text-book used is Gray's New Lessons in Botany. This is supplemented by daily field work, which in the main runs parallel with the text-book. The aim in the field work is to teach the student how to observe, and how to draw conclusions from his observations. The following

are a few of the subjects studied: Germination of corn, bean, or other common seed; opening of buds; falling of leaves; various fruits and their adaptations for dissemination; pollination and adaptations for cross fertilization. These notes and observations, together with the necessary drawings, are submitted from time to time for examination and criticism. In addition to this, each student prepares a herbarium of not less than 50 species of native plants. These are named by the aid of Gray's Manual of Botany, sixth edition. The students are required to carefully analyze a number of flowers, and to fill out special blanks furnished for the purpose, and also to provide themselves with a pocket lens, under the direction of the professor in charge.

Advanced Botany.— In the winter term of the fourth year, the minute structure of plants, as well as vegetable physiology, is studied more fully. This includes an examination of the vegetable cell, its parts, modifications, and of tissue as presented in its various forms. This is made the basis for more detailed work on special subjects, among which may be mentioned germination, development of tissues, protoplasm, starch, parasitic fungi — especially the molds, smuts, rusts, etc., and other cryptogamic plants. Each student has the use of a compound microscope, with the necessary tools and reagents. While this course is intended primarily to furnish a foundation for applied botany in horticulture and agriculture, it also affords, especially when taken a second term as an elective study, the advantages of systematic observation and original investigation. A good herbarium and a large greenhouse are drawn upon for material for study.

Chemistry.

The study of chemistry occupies 44 weeks. Fourteen weeks are first given to *Inorganic Chemistry*. In this the elementry principles of the science are studied, with special reference to familiarizing the student with the essential phenomena of chemical action. Combination by weight and by volume; formation of bases, acids, and salts, and the relations existing between them; systematic nomenclature and notation; the natural classification of the elements, based upon their properties — these, with careful study of the most important properties of the commoner elements, furnish the basis for the work. The facts studied are illustrated whenever practicable by experiments on the lecture table. In addition to this, each student gives two hours weekly to personal repetition of such experiments as can be performed with simple apparatus. Preparation of the elementary gases and a number of compounds, with experiments illustrating their properties, neutralization of bases and acids, and experiments illustrating the formation and stability of salts, are examples of the kind of work done by the students.

The course in *Organic Chemistry* extends over six weeks. This is taught by lectures in which the object is less a presentation of systematic organic chemistry than a study of the occurrence, manufacture and uses of the more important organic compounds met with in everyday life. In so far as the time and subjects will permit, however, the chemical relations existing be-

CHEMICAL LABORATORY, ANALYTICAL ROOM.

tween the various classes of compounds, and their relations to inorganic compounds, are set forth as simply and distinctly as possible. To facilitate this, the subjects are taken up systematically, the classification of Laubenheimer being adopted. The lectures are illustrated by experiments, but the students do no laboratory work in this connection.

The course which for convenience is designated *Analytical Chemistry* is not designed so much to perfect the student in analysis as to familiarize him with the properties, the resemblances and differences of the compounds of the various bases and acids. It is a course in experimental chemistry in which the regular methods of identification and separation of substances are used as a basis for the work. Each student has his own work table, with water, gas, regeants, etc., and works eight hours per week for 10 weeks. He is first given single salts of known composition, then simple known mixtures, and finally unknown substances, which may soluble or insoluble, simple or complex.

In addition to the laboratory work, the student is required to study carefully the nature of the chemical reactions which take place. Besides the small handbook used as a guide in the laboratory, students are expected to consult the larger works of reference. Two hours weekly are spent in the lecture room, in which the teacher conducts a quiz upon the subject and explains any obscure points. Throughout the term, the student is required to express by equations the reactions observed in the laboratory. The aim of the course is to unify and amplify the student's knowledge of general chemistry.

Agricultural Chemistry. Fourteen weeks of the course in chemistry are occupied by a study of the relations of chemistry to agriculture. This comes during the first term of the third year, immediately after the general course in chemistry. Some of the subjects studied are the breaking down of minerals and rocks into soils; erosion, transportation, and deposition; composition and classification of soils; the relations of plants to the constituents of the air, oxygen, nitrogen, water, carbon dioxide, ammonia; manures, their composition and use; green manuring; plowing, draining; the composition of grains and fodder plants; the principles of feeding; the chemistry of milk, butter, and cheese.

Mineralogy.

The common minerals are studied during six weeks of the winter term of the second year. One hour per day is given to recitations and to class-room study, and the same time to determination of minerals by their physical and blowpipe characters. A well-selected mineral collection is of daily use in this work.

Geology.

This includes a study of the igneous, atmospheric, aqueous and organic agents that have brought the earth to its present condition; the structure and arrangement of rocks; the order of succession in the strata of the earth's crust and in the life of the globe. Prominence is given to facts having an

economic bearing, valuable mineral deposits in Kansas receiving special attention.

Anatomy and Physiology.

Human anatomy is made the basis of a thorough study in physiology and hygiene. This includes such subjects as: Digestion and food; circulation of the blood; respiration and ventilation; secretion and excretion; the nervous system; and the special senses. The course embraces, to some extent, comparative anatomy and physiology, affording preparation for the study of stock breeding, zoölogy, and veterinary science. Martin's Human Body is used as a text-book. Skeletons and an Azoux manakin, with charts and drawings, furnish the means of demonstration.

Zoölogy.

In this study, Orton's Zoölogy has been adopted as the text-book. The intention of the course is to familiarize the student with the characters of some type in each class, and then, by comparative study, with the chief modifications of the type chosen. Especial attention is given to comparative anatomy and physiology. A good collection of mammals, birds, reptiles, fishes, both mounted and alcoholic, a collection of invertebrates in alcohol, and a fine collection of conchological specimens, are among the means of illustration. Dissection and work with the microscope accompany the study.

Veterinary Science.

The 12-weeks course of lectures is adapted to wants of farmers and stockmen, and includes such topics as the following: Hygiene and nursing of sick and wounded stock; diseases of bone and their treatment; diseases of the circulation, respiratory and digestive systems, their causes, treatment, and prevention; surgical operations; difficult parturition; shoeing and lameness; veterinary dentistry; horse judging and examination for soundness; some contagious and infectious diseases; their nature and prevention; the principal medicines used in treating sick animals, and how to give them.

Lectures are illustrated by use of animals, an Azoux model of a horse which is dissectible, showing nearly 1,000 anatomical structures, skeletons charts, and diseased specimens. Whenever practicable, operations are performed before the class, and students are requested to assist.

Special Hygiene.

To young women of the third year, a course of daily lectures is given upon the laws of life and health. The course extends over a period of 10 weeks, and covers questions pertaining to personal health and the health of the household, such as food, air, exercise, clothing, temperature of rooms, and care of sick room.

Household Economy.

A series of lectures to young women of the second year continues through a term of 12 weeks. These cover the subjects of marketing, the chemistry of cooking, order, neatness and beauty in housekeeping, and comfort of a family.

KITCHEN LABORATORY.

The class spends one hour each day in the kitchen laboratory, and cooking is done by each student.

Physics and Meteorology.

Two-terms work gives an opportunity for experimental study of the laws of sound, heat, light, electricity, and magnetism; the constitution of the atmosphere; the measurement of temperature and humidity; atmospheric pressure. Text-book, Atkinson's Ganot's Physics. This course also includes a careful study of instruments and methods employed in taking meteorological observations.

Bookkeeping and Commercial Law.

Beginning with a simple cash account, bookkeeping is developed through all the principles of single and double entry. Considerable time is given to those forms best adapted to farm and business life. Each student provides a full set of blanks, and keeps a regular set of books, in which accuracy of calculation and posting and neatness of execution are just as essential as correct understanding of the principles. Text-book, Mayhew's Standard Bookkeeping. In connection with the term's work in bookkeeping, a practical course in commercial law is given, including contracts, farm rights, negotiable paper, sales, real estate, partnership, bailment, common carriers, and business forms.

Algebra.

One year is given to the study of algebra. In the first term, arithmetical processes are briefly reviewed and generalized by the use of negative numbers. The student is made familiar with algebraic notation, the primary processes, factoring, fractions, and the simple equation. In the second term, the equation in its various forms and applications, and the theory of exponents, are made subjects for study. The third term is given to ratio, proportion, series, logarithms, and such other topics as are essential to success in every course in mathematics. Text-book, Wentworth's Higher Algebra.

Geometry.

In geometrical drawing of the first year, the student has already become familiar with geometrical forms, and the construction of figures representing them. Plane geometry is studied during the fall term of the second year. Half the winter term is then given to solid and spherical geometry. Throughout the course, original demonstrations, and the solution of practical problems involving the theorems demonstrated, are required of the class.

Trigonometry and Surveying.

All the essential principles of plane trigonometry are carefully developed and thoroughly mastered. A short treatment of spherical trigonometry follows. Surveying includes theory, adjustment and use of instruments, platting, determination of areas, dividing land, U. S. Government surveys, triangulation, leveling, topographical surveying, and railroad surveying. Field practice with compass, transit, plane table and Y level is required. A topo-

graphical map, the data for which are gathered during the fall term, is drawn by each student during the winter term. Text-book, Wentworth's Trigonometry and Surveying.

Mechanics and Engineering.

A careful consideration of the laws of motion and force, as exhibited in machines and various phenomena of nature, occupies a single term. Another term is given to lectures in elementary, mechanical and civil engineering, and to the study of proper materials for buildings, their construction and durability; forms of roofs and bridges; care and use of machinery; and roads and road making. Drafting is an essential feature of the work. Haswell's Engineer's Handbook is used in connection with lectures in engineering.

Drawing.

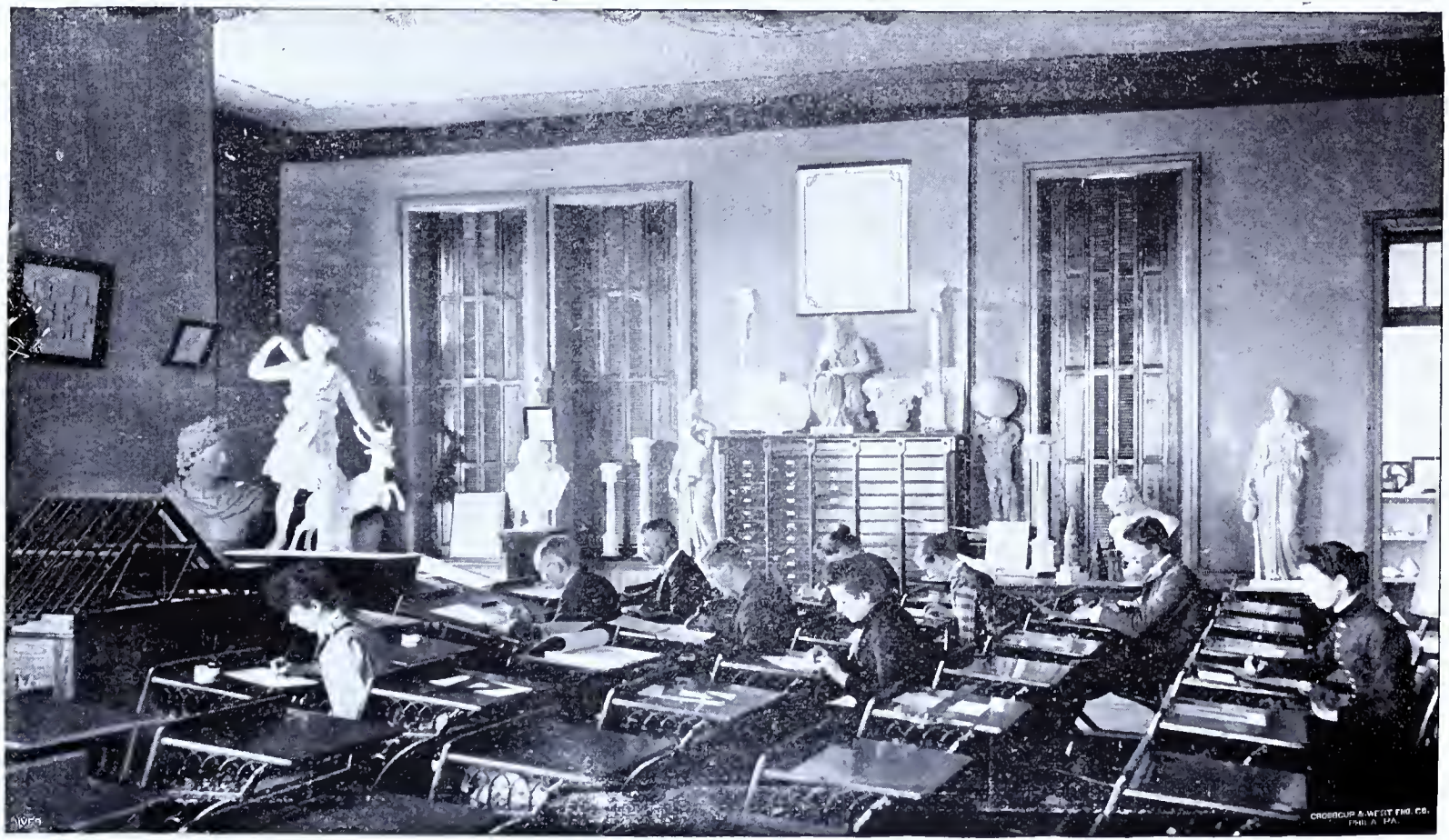
This study is required in four terms, of which two are in the first, one in the second and one in the third year.

First Term.—Definition and mensuration of geometrical magnitudes; construction of perpendiculars, parallels, angles, and polygons, the circle and its secant lines, the ovoid, the oval, the spiral, the ellipse, the parabola, the hyperbola, the involute, the cissoid, the conchoid, the cycloid, the epicycloid, various geometrical ornaments and elementary architectural forms; use of drawing board, T square, and water color; conventional representation of building materials. The College furnishes drawing board, T square, triangles, and water colors, but each student is required to have a first-class drawing pen and a pair of strong compasses, with attachments.

Second Term.—Free hand drawing three hours per week for twelve weeks. This term is given to surface designing. The student begins with simple geometrical forms, involving the straight line and the arc. He is led to note the effects of geometrical arrangement, repetition, alternation, symmetry, proportion, harmony, and contrast. Later on the conventional ornament is taken up, and more subtle curvatures and complex forms are introduced, until, toward the close of the term, natural forms and historic ornaments in the flat are studied. Walters' Free-hand Drawing Books Nos. 1, 2 and 3 are used as text-books.

Third Term.—This term is given to the study of the elements of orthographical and isometrical projection, including the principles of shades and shadows, the development of warped surfaces, helices, etc. Books 3 and 4 of Morse's Mechanical Drawing are used as text-books.

Fourth Term.—Half of this term is given to the study of linear perspective, including angular and oblique perspective, cylindric perspective, perspective correction, intersection of curved and plain surfaces in perspective, shades in perspective, and shaded perspectives. Books 5 and 6 of Morse's Mechanical Drawing are used as text-books. During the other half of the term, the young men study advanced projection. This work includes the interesting intersections of the pyramid, the cylinder, and the cone. The figures are drawn from dictated notes and to given dimensions.



DEPARTMENT OF INDUSTRIAL ART.

Accuracy of measurements is required in all work. Every student is instructed in the manipulations of the blue- and black-printing processes.

The young women do not study advanced projection, but instead of this take up drawing from the object. The models used are geometrical solids, and objects of utility and beauty, whose forms bear close relationship to geometrical types. The students are led to recognize the facts, relations and principles involved in the apparent form of the object, to note the distribution of light, shade, shadow, and the reflection on the same, and deduce the general principles which the observation and comparison of these appearances are found to establish. Walters' Object Drawing Books 1 and 2 are used as text-books.

During the winter term of the third year, each student is required to draw, color, ink and letter a map delineating the surveys made during the fall term.

Students who show special aptitude are encouraged to take drawing as a fourth study during any part of the course, and given every opportunity to fit themselves for the drafting office or for special art schools. The instruction includes an extended course in free-hand drawing, shading, coloring, architectural and mechanical drawing, supplemented by a course of reading on art topics.

The graphic work of the different classes and special students is retained by the department for exhibition during Commencement, after which it is returned.

English Language and Literature.

Grammar is passed upon entrance, but the fall term of the first year is given to study of the origin and growth of the language, the analysis of sentence making, and the discussion of idioms, difficult constructions, and parallel expressions, together with such contraction, transposition and transformation of sentences as will aid in securing variety in expression. The course will be essentially one of higher analysis. The winter term is given to the study and practice of composition. The spring term is given to English structure. Under this is included a careful study of words and their elements — roots, prefixes, and suffixes. The most fruitful primitives from the Saxon, Latin and Greek are learned, and also the laws governing the formation of derivatives. Lectures are given on the history and changes of words, and daily exercises are intended to teach careful discrimination in their use.

Third Year.— One term is given to the study of higher rhetoric, embracing the principles of clear explanation and convincing argument, as well as the outlines of sound criticism. This is followed by a term spent in the history of the English language and literature, with abundant illustrations from the best authors.

Students are led this way to appreciate the power of our mother tongue, and at the same time to gain some acquaintance with the best thought of the world. Students are encouraged and directed in the use of the College li-

brary, and are under constant oversight in the expression of their thoughts in writing. Each class meets once a week for instruction and practice in elocution and composition. Original declamations, delivered before the students and Faculty, make a part of the drill in the higher classes.

In the course for young women, the first term of the fourth year gives training in the elements of criticism and good taste, by a study of famous works in English and American literature.

Text-Books.—Swinton's Word Analysis, Welch's Composition, Genung's Rhetoric, Kellogg's English Literature.

History and Political Science.

General history is studied during the fall term of the third year. The text-book, Sheldon's Studies in General History, is supplemented by lectures on the progress of civilization and the philosophy of history. Considerable attention is given to the various forms of government. The chief object of the course is to teach the student how to study history, and he is constantly urged, therefore, to form his own conclusions from the facts presented.

The winter term of the third year is given to civil government and the political history of the United States and Kansas. Johnston's American Politics, Canfield's Local Government in Kansas and Hinsdale's American Government are used as text-books, but additional matter is given in lectures and much individual work is required.

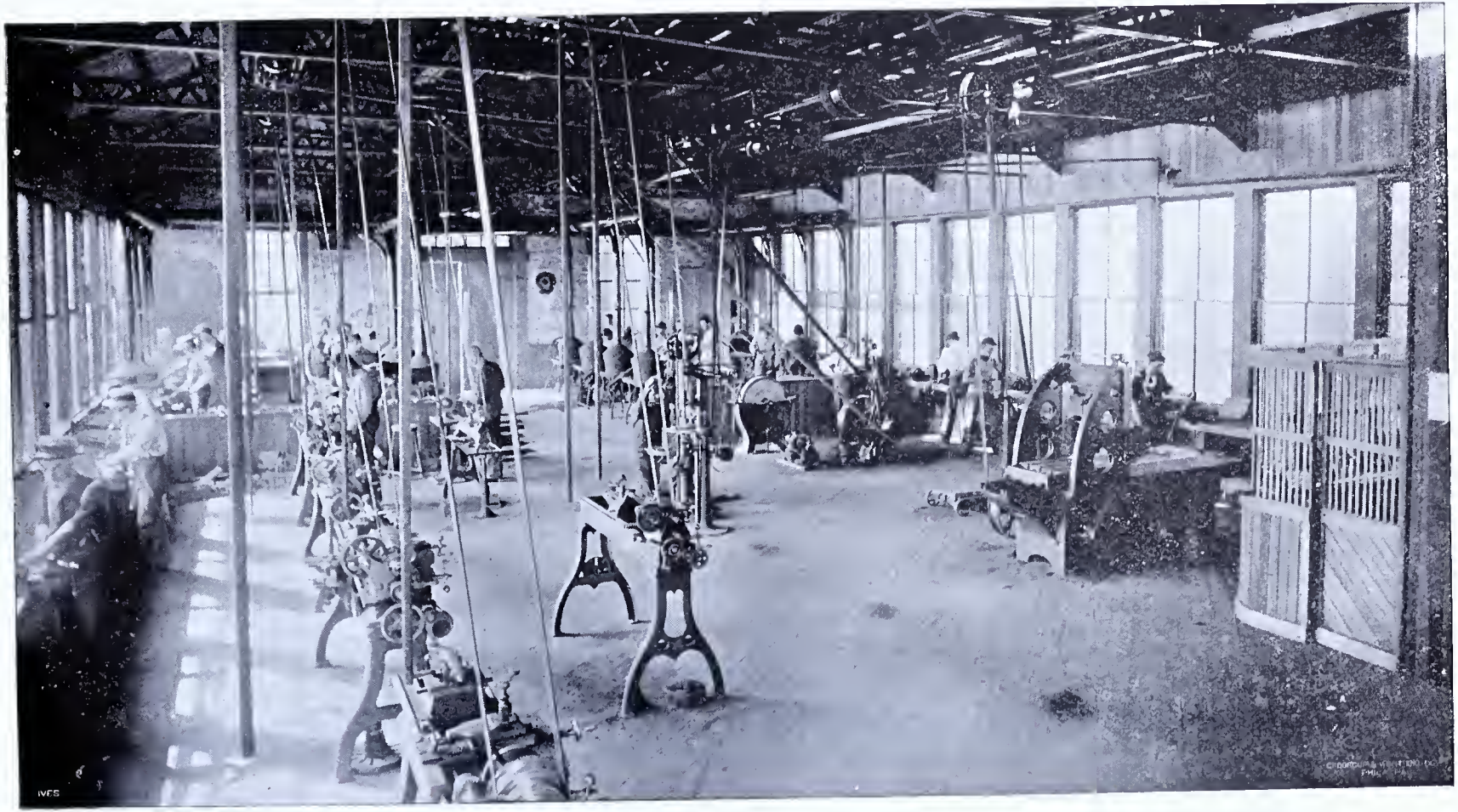
Political Economy.

The study of political economy, in a full term of the fourth year, gives a fair presentation of subjects connected with production, distribution and consumption of wealth. Walker's Briefer Course is the basis of the work, but lectures are given at frequent intervals. Pains is taken to compare conflicting views, and point out sources of information on all sides of vexed questions, without bias or prejudice. Each student is required to present at some time during the term an original paper upon some topic assigned by the instructor

Logic and Philosophy.

The art of reasoning correctly is aided by a study of systematic logic, both deductive and inductive. Special prominence is given to methods for exact observation and experiment and correct principles of classification. The previous researches and experience of the students are made to illustrate these principles. Text-book, Jevons-Hill, Elements of Logic.

A short course in psychology gives the general principles of intellectual and moral philosophy. Perception, understanding, memory, imagination, thought, feeling and volition are topics of explanation and analysis. Theories of right and wrong and correct principles of action are made the means of a clear understanding of the nature of government in various forms, with special attention to individual rights and duties.



MACHINE SHOP.

Industrial Arts.

The training in these departments is designed to be systematic and complete in each, so that the student following a single line diligently through the four-years course gains the essentials of a trade and a reasonable degree of skill. Those who wish only a general acquaintance with the arts can take shorter courses in several of them; but all are to select with a definite purpose, In the established course, young men are required to take the regular term in the carpenter shop, and on the farm and gardens, whatever the industrial chosen; young women are required to give one term to sewing, one to practice in the kitchen laboratory, and one in the dairy.

Agriculture and Horticulture are required of young men as industrials during one term of the second year and one term of the third year. In these practice is made to illustrate and emphasize the teaching, and cover essentially the same ground.

Woodwork and Ironwork.—Woodwork is required of all young men during one term of the first year. In the first term's work a definite, graded series of tasks is given in joining, work to dimensions, and simple problems in construction and turning, with the proper use and care of common bench tools, through which each student is advanced according to ability. Practice is given later in general woodwork, carpentry, cabinetmaking, turning, and pattern making; and the advanced students may have work suited to their chosen line, with special problems of construction, and special training in the use and care of fine tools, including saw filing. All work during industrial hours is laid out by the Superintendent, and belongs to the shop, except that fourth-year students are allowed to work from drawings of their own upon articles for their own use or profit. All students may be allowed the use of the shop outside of the practice hours for work of their own, under direction of the Superintendent.

A general course in ironwork includes graded work in blacksmithing, the management of the forge and hammer, drawing out, welding, forming, etc.; graded work in founding, covering, bench and floor molding in iron and brass; also graded work in machine-shop practice, including bench and machine tool work, filing, chipping, laying out work, boring, turning and planing the metals.

Cooking.—During the winter term, the young women who have lectures on household economy are required to cook one hour each day. They are taught various methods of making the substantial articles of food, as well as allowed to spend some time on the dainty dishes. During the term, they have practice in waiting on the table and in serving guests, thus putting the lectures into immediate practice.

During the fall term, any students who have passed the study of household economy may take cooking as an industrial, in which canning fruits, making preserves, jellies, pickles, mince-meat, desserts, cake and fancy breads form the principal part of the work.

Dairying.—During the spring term, daily instruction and practice in domestic dairying are given the young women of the second year by the instructor in household economy. Here the regular daily work is supplemented by a short course of lectures, intended to explain the best practice in the arts of butter and cheese making, and to give the reasons therefor. The following topics cover, in the main, the instruction given the class: Influences affecting the quality and quantity of milk; butter making; creameries; "deep" and "shallow" setting systems; packing and preserving butter; the household and factory systems of cheese making.

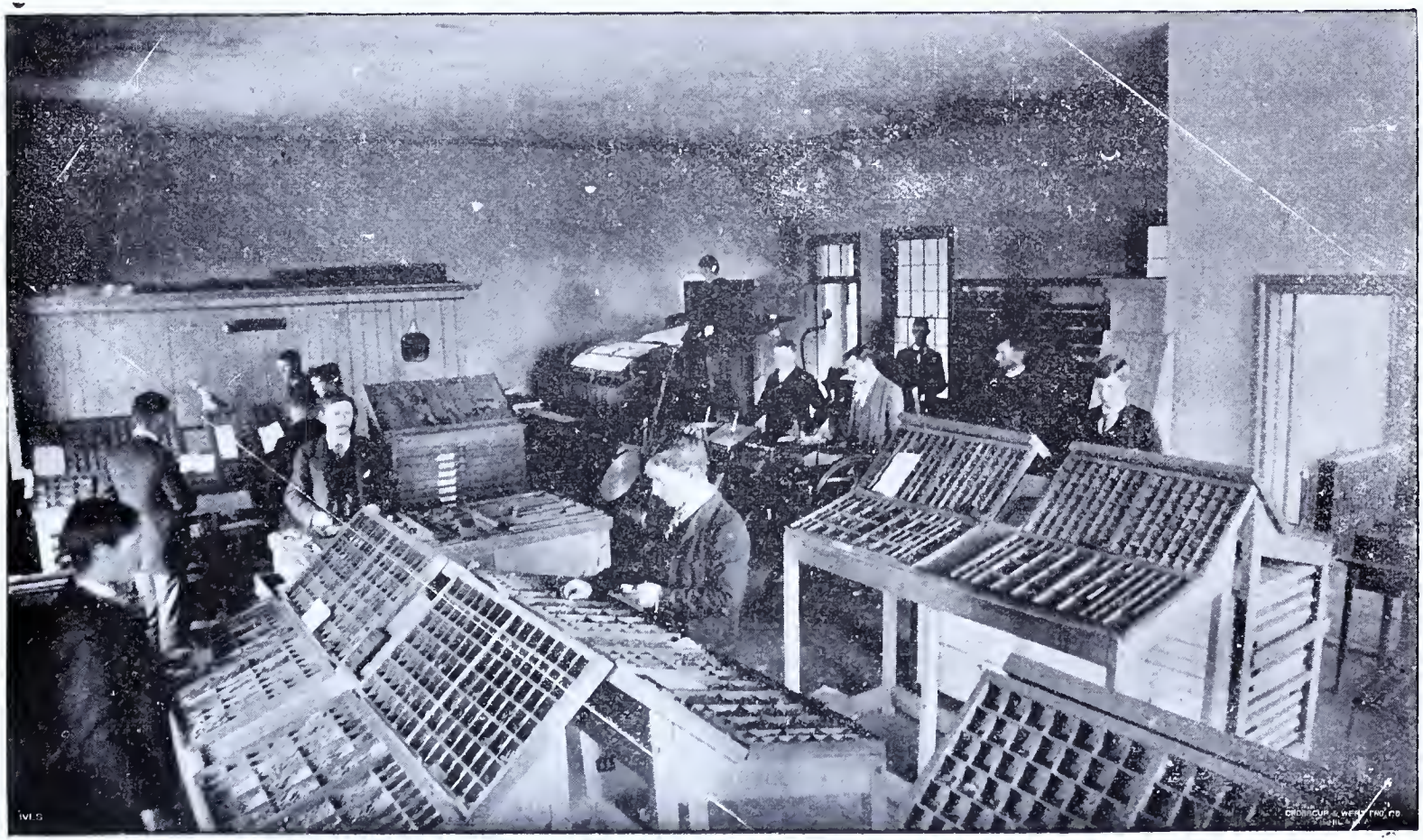
Sewing.—One term of sewing is required before the completion of the first year of study. During this term the work is carefully laid out by the Superintendent in a series of lessons, graded to the capabilities of each student. To more advanced students all ordinary forms of sewing with needle or machine are taught, and any student may furnish material, and work for her own advantage under direction of the Superintendent. Cutting and fitting by a straight-line system are taught, and the systems are furnished at wholesale rates. Fancy needlework and knitting may be taken at certain stages of the course.

Printing.—Two courses are pursued in this art. In one the student is taught the use of the implements or tools used in typography; composition and imposition; correcting proof; technical terms; presses and their workings; and the general duties of a first-class workman. The other course of lessons embraces instruction in spelling, capitalization, syllabication, punctuation, proof reading, and such other work as will make the student accurate and expert. Wilson's Punctuation is the text-book; but much of the instruction is oral—such as grows out of the everyday experience of the office.

Admirable drill is furnished by the *Industrialist* to all, but especially to those who take the full course. The printing which the departments of the College require gives to the advanced student a fair knowledge of the principles and practice of job work.

Instrumental Music.—Provision is made for giving instruction upon the piano, organ, the more important orchestral and band instruments. A full course upon the organ or piano extends over four years, including harmony and composition; but the students may take lessons for a single term if they choose. The College furnishes the pianos and organs for daily practice, but the instruction is paid for at the usual rate, as given under "Expenses." Music may be the industrial for young women, unless some other is required in the course. Young men may take music in addition to their course, if able to keep up standing in classes.

Opportunity is given for students who are sufficiently advanced to join in the weekly rehearsals of the College orchestra on Wednesday, and the cadet band on Friday.



PRINTING DEPARTMENT.

Vocal Music.

All students are furnished instruction in vocal music free of charge, under the direction of the Faculty. Classes meet on Mondays and Wednesdays for advanced pupils, and for beginners on Tuesdays and Thursdays, at 1:30 P.M. The advanced class shares in the music of public exercises during the Commencement week. This study is taken up at the choice of the student, but regular attendance is required as at other classes until excuse is granted.

Arrangements for special voice culture may be made with the professor in charge, on reasonable terms.

Text-books.— Scansion and Song, Brown's Prismatic Charts, Hatton, Concone, Marchesi, with selections from the opera and oratorio.

Military Training.

The course of instruction is both practical and theoretical. The practical occupies two hours each week; the theoretical an average of one.

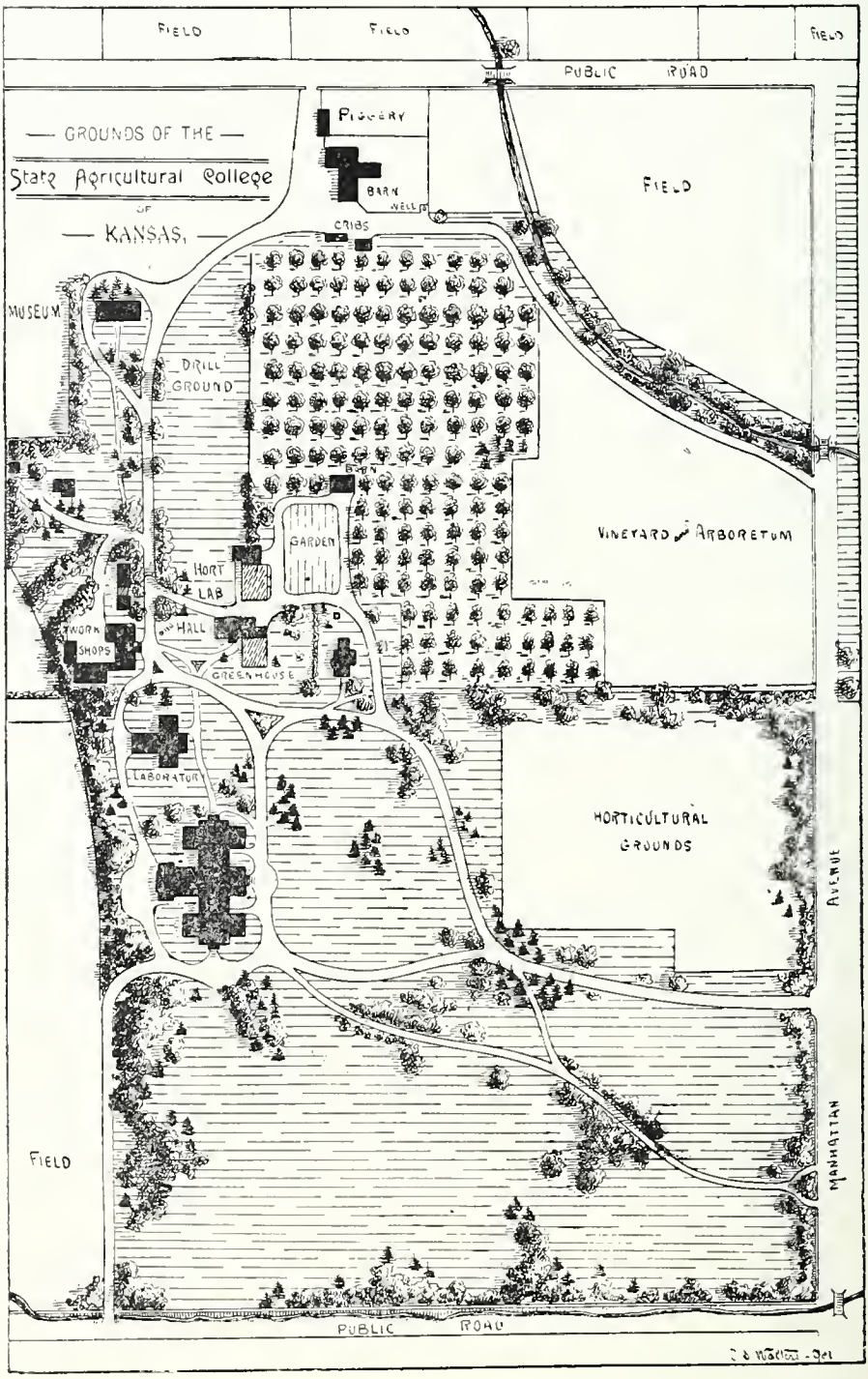
Theoretical.—A course of 32 lectures is given to the second-year class. These are designed to show how an army is organized, equipped, and supplied; to explain some of the minor operations of war; to show the organization of the militia under the militia law of this State. Instruction is afforded to such as desire it in other military subjects.

Practical.—Drills are held twice each week. Students who desire to learn have an opportunity to do so. Having once enrolled, they must serve the remainder of that term. In order to obtain any reasonable degree of proficiency, however, the new recruit should attend drills at least three terms.

The practical course in infantry embraces small-arm target practice, and, as far as possible, all the movements prescribed by the "Drill Regulations of the United States Army" that are applicable to a battalion. Instruction in artillery includes, as far as practicable, such portions of the United States drill regulations as pertain to the formation of detachments, manual of the piece, mechanical maneuvers, and firing blank cartridges.

The College battalion is divided into companies, which are officered by students appointed each term by the professor in charge, with the approval of the President.

Arms and accouterments are furnished by the United States Government, the students being required to keep such as they use in proper condition. Uniforms for use in drill are furnished by the College.


FIELD
FIELD
FIELD
PUBLIC ROAD
— GROUNDS OF THE —
State Agricultural College
OF
— KANSAS. —
PIGGERY
BARN
WELL
CRIBS
FIELD
MUSEUM
DRILL GROUND
BARN
GARDEN
VINEYARD & ARBORETUM
HORT LAB
HALL
WORK SHOPS
GREENHOUSE
LABORATORY
HORTICULTURAL GROUNDS
MANHATTAN AVENUE
FIELD
PUBLIC ROAD

General Equipment.

GROUNDS AND BUILDINGS.

The College grounds and buildings, occupying an elevation at the western limits of the city of Manhattan, and facing towards the city, are beautiful in location. The grounds include an irregular plat in the midst of a fine farm, with orchard, vineyard and sample gardens attached, the whole being surrounded by durable stone walls. The grounds are tastefully laid out and extensively planted, according to the design of a professional landscape gardener, while well-graveled drives and good walks lead to the various buildings. All of these are of the famed Manhattan limestone, of simple but neat styles of architecture, and admirably suited to their use. All recitation rooms are excellently lighted and ventilated, and all are heated by steam or hot water. A complete system of sewerage has been provided. The buildings stand as indicated in the plat accompanying the following description:

College, 152x250 feet in extreme dimensions, arranged in three distinct structures, with connecting corridors. This building contains, in its two stories and basement, offices, reception room, cloak rooms, studies, chapel, library, reading room, kitchen laboratory and dairy, sewing room, society rooms, and 12 class rooms.

Chemical Laboratory, one story, 26x90 and 46x75 feet of floor space, in form of a cross. It contains eight rooms, occupied by the Department of Chemistry and Mineralogy.

Mechanics' Hall, 39x103 feet, two stories, and 40x80 feet, one story, occupied by wood and iron shops, printing office, music rooms, iron foundry, lumber rooms, etc., in addition.

Horticultural Hall, 32x80 feet, one story and cellar, having cabinet room, class room, and storage with greenhouse attached.

Horticultural and entomological laboratory, with propagating houses attached.

Museum Building, 46x96 feet, and two stories high. This building, which has served many purposes, is now fitted for an armory, drill room and veterinary laboratory below, and for class room and laboratory for Department of Botany and Museum of Natural History above.

The plans for a building, to cost $60,000, are now in course of preparation by the State architect, designed to provide permanent quarters for the library, with ample reading room; class rooms, laboratories, and cabinet room for zoölogy, entomology, and botany; and suitable rooms for the various College

societies. This building is to be completed during the next fiscal year, and will stand near the south end of College Hall.

Appropriation is also made for a central steam plant, to furnish heat and power for all the buildings. This plant is to cost $14,000, and will be completed in the fall of 1893.

The farm barn is a double but connected stone structure, 50x75 feet and 48x96 feet, with an addition of sheds and experimental pens 40x50 feet. A basement, having stables for 75 head of cattle, silos, engine room, and granaries, underlies the entire structure.

The horticultural barn is a stone building, containing storeroom, granary, and stables for several horses.

The foundries, lumber house, implement house, piggery and various outbuildings are of wood.

Two stone dwellings, occupied by the President and the Professor of Agriculture.

LIBRARY.

The College library consists of over 13,000 bound volumes and about 4,000 pamphlets, and is valued at $26,000. It has been selected mainly with a view to supplementing the class-room instruction in the various departments. All the books are indexed in a card catalogue, so that the resources of the library upon any subject may be readily learned. All students have free access to the bookshelves, and may draw the books for home use, under simple and most liberal regulations.

The College subscribes for the leading literary, scientific and agricultural journals; while the principal daily and weekly papers of Kansas and many from other States are received in exchange for the College publications. All these are kept on file for the use of students and Faculty.

The College has been designated as the depository of United States public documents for the Fifth Congressional District of Kansas. About 1,000 volumes have already been received on this account.

The library is open daily except on legal holidays. During the College terms, the library hours are from 8 A. M. to 4 P. M., and during vacation from 9 A. M. to 12 M. The Librarian or the assistant is in constant attendance, at these hours, to assist those who use the books.

An approximate estimate of the number of books, including public reports and bound periodicals, by classes, is as follows:

Classes.	*Vols.*	*Classes.*	*Vols.*
Agriculture	1,375	History	600
Horticulture	550	Biography	475
Mechanics and engineering	450	Geography and travels	325
Mathematics and astronomy	275	Dictionaries and cyclopedias	200
Physics and meteorology	350	Philology	150
Chemistry and mineralogy	325	Education	350
Geology	425	Law	100
Botany	450	Administrative reports	550
Zoölogy	350	Public documents on deposit	1,000
Entomology	150	Fiction, including juveniles	240
Physiology and sanitary science	275	Essays and literary criticism	325
General science, proceedings, etc	550	Poetry	125
Military science	150	Logic and philosophy	225
Domestic science	100	Religion and morals	500
Political science	350	Fine arts	225
Bound magazines	1,300	Miscellaneous	150

BARN AND SHEDS.

MEANS OF ILLUSTRATION.

Agriculture.— One hundred and eighty-five acres of land used for farm purposes, with hundreds of plats under experiment in grain, grasses, and forage crops; and illustrating various methods of culture and rotation.

A barn 50x75 feet, expressly arranged for experimental uses; and connected with it a general-purpose barn, 48x96 feet, for grain, hay, horses, and cattle. Both buildings are of stone, and are provided with steam power, and equipped with improved machinery for shelling, grinding, thrashing, cutting for the silo, and steaming.

Two piggeries—one of 10 pens, for experimental uses, and one of 6 pens, with separate yards, for general purposes.

An implement house, 22x50 feet, of two stories, and cornerib.

Shorthorn, Aberdeen-Angus, Hereford, Holstein-Friesian and Jersey cattle; Berkshire and Poland-China swine; and Shropshire sheep.

Farm implements of improved patterns.

Collections of grains, grasses, and forage plants.

Buildings, stock and equipments are valued at $26,000.

Horticulture and Entomology.— Orchards containing 100 varieties of apples, 30 of peaches, 30 of pears, 20 of plums, 30 of cherries, and 5 of apricots.

Small-fruit garden, with 200 varieties of small fruits, including blackberries, raspberries, gooseberries, currants, and strawberries; and vineyard, with 160 varieties of grapes.

Forest plantation of 12 acres, containing 20 varieties, of from 1 to 25 years' growth.

Ornamental grounds, set with a variety of evergreens and deciduous trees. Sample rows, containing about 150 varieties of ornamental and useful shrubs and trees, labeled.

Vegetable garden, with hotbeds and cold frames, and experimental beds. Practice rows for students' budding, grafting, cultivating, and pruning.

Two well-planned and furnished greenhouses of three rooms each, stocked with a collection of native and exotic plants.

Museum, containing a collection of woods from American forests, and a large series of specimens in economic and general entomology.

Value of property, exclusive of orchards and grounds, $16,000.

Chemistry and Mineralogy.—Eight rooms, fitted with tables and apparatus for a class of 80 students in qualitative analysis, eight in quantitative analysis, including necessary facilities for assaying, with a mineralogical collection and general illustrative apparatus. Value, exclusive of building, $8,200.

Geology, Zoölogy, and Veterinary Science.—A general museum, well fitted with cases containing valuable collections of mounted Kansas mammals and birds, with mounted skeletons of wild and domestic animals. The largest collection of Kansas fishes and mollusks in the State. Kansas reptiles and batrachians, salt-water fishes and invertebrates, in alcohol. Collections of

moundbuilders' and Indian relics. Kansas fossils and rocks, typical of the geological ages found in the State.

In veterinary science: A laboratory fitted with apparatus and reagents, for the study of disease. A collection of charts, models, and anatomical preparations, illustrating healthy and diseased structure. Value, including general museum, $7,500.

Botany.—A general herbarium, consisting of a large collection of plants of the United States and other countries; a Kansas herbarium, containing specimens illustrating the distribution and variation of plants throughout the State; also 28 compound microscopes, four dissecting microscopes, tools, reagents, etc. Valued at $3,750.

Drawing.—Models, plaster casts, patterns, charts, easels, and implements. The class room is provided with top light, and furnished with 24 new Dietzgen patent drawing tables. An adjacent room is fitted up with running water, coating table, ruby light, etc., for blue and black printing. Valued at $2,000.

Physics.—Complete physical apparatus, for general instruction in physics, and meteorological instruments, including a self-recording anemometer. Among the apparatus for special work may be mentioned, Coulomb's torsion balance, Kohlrausch differential galvanometer with reading telescope, Deprez-Carpentier ammeter, Ayrton and Perry's voltmeter, Thompson's potential and current galvanometers, Carhart-Clark standard cell, standard legal ohm, Wheatstone's meter bridge, Edelmann dynamo. The value of the whole is $4,000.

Mathematics and Surveying.—Transits, plane table, compasses, levels, chains, models, etc. Valued at $1,300.

Mechanics and Engineering.—Carpenter shop, with separate benches and tools for 45 students in each class, besides lathes, mortising machine, circular saws, band saws, planer, friezer, boring machine, grinder, and general chest of tools for fine work. Power furnished by a 10-horse-power Atlas engine.

Shops for iron work contain blacksmith forges to accommodate at least 16; brass foundry of 12 benches and large furnace for brass; iron foundry, with two-ton cupola; machine shop equipped for 30 students, including, besides hand tools, lathes, drills, planer, etc.

Inventory of material and apparatus in both shops, $14,000.

Kitchen Laboratory, with ranges, cooking utensils, dining-room furnishings, dairy furniture. Valued at $800.

Printing Office, with 30 pairs of cases; large fonts of 6-point, 8-point, 10-point and 11-point Roman type; a good assortment of job type and brass rule; a Babcock cylinder press, with steam power, a new Liberty quarto-medium job press, a Gordon eighth-medium job press; a mitering machine, a rule-curving machine, and a paper cutter. Value of equipment, $4,300.

Sewing Rooms, with eight machines, models, patterns, and cases; worth $700.

SEWING DEPARTMENT.

Music Rooms, with five pianos, four organs, other instruments, and nine charts; valued at $1,800.

Armory, containing 150 stands of arms (breech-loading cadet rifles, caliber .45), with accouterments; two three-inch rifled guns; also swords, uniforms, etc. Value, exclusive of arms, $1,000.

General Information.

EXAMINATIONS.

Examinations for admission are held at the beginning of each term, as laid down in the calendar of the College year. Applicants, to enter at any time during the term, shall have special examinations. These examinations are chiefly written, and a standard of 70 per cent. is required to pass any study.

Examinations in the course are held as arranged by the Faculty. The results of these examinations are marked on a scale of 100, and combined with the average of the preceding daily exercise upon the same scale into a grade for report to the Secretary. But any student not present at three-fourths, at least, of the class exercises, receives, at such time as the teacher may name, a more extensive examination than the general one; and this examination alone decides the grade. Unexcused absences are taken into account in calculating grades.

Averages of grades in the register are made by giving the final term grade a value of two-thirds and previous grades a value of one-third. After each term examination during the first year of attendance, a report of advancement is made to parents; and any student, upon leaving College at the close of a term, may receive a certificate of standing.

The final grade and the term average must be at least 70 for passing any study; and any student who fails to pass in two studies of the course may drop back a year or withdraw from College.

After completing the studies of the first year, students are allowed special examinations only upon recommendation of the professor in charge, and by permission of the Faculty. Permission for examination in studies not pursued with a class must be obtained at least two months before the examination is held. All such examinations are held under the immediate supervision of the professor in charge, and are thorough and exhaustive.

Candidates for graduation must make good all deficiencies before entering upon the work of the spring term of the fourth year.

Students are not catalogued in the third-year class unless deficiencies of previous years are provided for.

Students deficient in entrance studies must make good such deficiencies before entering upon the work of the second year.

TERMS OF ADMISSION.

Applicants for admission at the beginning of the College year must be at least 14 years of age, and able to pass a satisfactory examination in reading,

VETERINARY LABORATORY AND DRILL HALL.

spelling, writing, arithmetic, geography, English grammar, and United States history. Those applying later in the year must show sufficient advancement to enter the classes already in progress. Every effort should be made to begin with the first day of a term, in order to advance with the classes from the first.

The following diplomas and certificates will be received in lieu of entrance examinations:

1st. Diplomas received on the completion of a county course of study which has been approved by the Faculty, when properly signed by the county superintendent.

2d. Certificates of passing the grammar grade in any city school with a course of study approved the Faculty, when properly signed by the city superintendent.

3d. Kansas teachers' certificates issued by the county board of examiners, showing that the above-named studies have been passed with a grade of at least 70 per cent.

The Faculty have approved the courses of study adopted by the following counties and cities; others may be submitted for approval at any time:

COUNTIES.

Allen,	Elk,	Linn,	Reno,
Anderson,	Ellis,	Marshall,	Rice,
Barber,	Ford,	Marion,	Riley,
Brown,	Geary,	McPherson,	Rooks,
Bourbon,	Greenwood,	Miami,	Rush,
Butler,	Harper,	Mitchell,	Russell,
Chase,	Harvey,	Montgomery,	Saline,
Cherokee,	Jackson,	Nemaha,	Shawnee,
Clay,	Jefferson,	Neosho,	Sumner,
Cloud,	Jewell,	Osage,	Wabaunsee,
Cowley,	Johnson,	Osborne,	Washington,
Dickinson,	Kingman,	Ottawa,	Wilson,
Doniphan,	Labette,	Pottawatomie,	Woodson,
Douglas,	Leavenworth,	Republic,	Wyandotte.

CITIES.

Abilene,	Concordia,	Kanapolis,	Oswego.
Anthony,	El Dorado,	Kansas City,	Ottawa,
Arkansas City,	Emporia,	Kingman,	Paola,
Atchison.	Eureka,	Larned,	Parsons,
Augusta,	Fort Scott,	Lawrence,	Pomona,
Beloit,	Fredonia,	Leavenworth,	Russell,
Burlington,	Gaylord,	Lyons,	Salina,
Caldwell,	Girard,	Manbattan,	Seneca,
Chanute,	Great Bend,	Mankato,	Solomon City,
Cherry Vale,	Hiawatha,	McPherson,	Topeka,
Chetopa,	Holton,	Minneapolis,	Washington,
Clay Centre,	Horton,	Newton,	Wellington,
Clifton,	Hutchinson,	Olathe,	Winfield,
Coffeyville,	Independence,	Osage City,	Wichita.
Columbus,	Junction City,	Osborne,	

Applicants over 18 years of age, who, for lack of advantages, are unable to pass the full examination, may be received on special conditions.

Applicants for advanced standing in the course must pass examination in

all the previous studies of the class to be entered; but, if they have pursued sueh studies in other institutions of similar rank, they may receive eredit for their standing in those institutions, upon presenting a certificate from the proper offieer, showing that their eourse has been equivalent to that given here.

The questions here presented may serve as samples of the examinations for admission.

Grammar.

1. Define grammar, analysis, parts of speech, parsing.
2. Name and define the elements of the sentence.
3. Classify sentences, and write a sentenee of each class.
4. Define infinitives, partieiples. Give an example of eaeh.
5. What is an adjeetive clause? An adverb elause? A noun clause? Show by sentences the use of eaeh.
6. Give the subdivisions and the modifications, or properties, of the pronoun.
7. Name and illustrate the constructions in whieh a noun is in the nominative case. In the objeetive ease.
8. Explain agreement of the verb, and give sentenees to illustrate.
9. Analyze or diagram: "When I reflect upon the influenee of a mother, of a pure, edueated, Christian woman, I no longer doubt."
10. Parse italieised words:

"*Burned Marmion's swarthy cheek* like fire,
And shook *his* very *frame* for *ire.*"

Arithmetic.

1. Find the L. C. M. and G. C. D. of 724 and 896.
2. Find the cost of 8,462 lbs. of hay, at $9.50 a ton.
3. A field containing 18 aeres is 80 rods long. Find the eost of feneing it at $1.25 a rod.
4. A merehant sells a wagon for $161, and gains 15 per eent. How much did he gain?
5. If copper is mixed with 20 per cent. of its weight of niekel, what per cent. of the mixture is niekel?
6. Find the interest on $960 from March 5, 1882, to September 25, 1888, at 7 per eent.
7. Whieh is the better, to buy flour at $8 per barrel on 6 months' eredit, or at $7.50 eash, money being worth 6 per cent.
8. Whieh is the better investment, 5-per-cent. stoek at 75, or 6-per-eent. stock at 80?
9. Find the eube root of .75 to three figures.
10. What will be the eost of a 90-day draft for $5,000, if exehange is $\frac{1}{4}$ per cent. diseount, and money worth 6 per cent.

Geography.

1. What is latitude? Longitude? A prime meridian? Explain the cause of winter and summer.

2. Name the grand divisions of the earth, and after each write the name of its principal mountain system and largest river.

3. Name and locate five lakes, five gulfs or bays, five rivers, of North America.

4. Draw map of your native State, showing rivers, railroads, and important cities. What are its chief products?

5. Name, in their order, the States that border on the Atlantic ocean, and give the capital of each.

6. What kind of a government has Mexico? Who are its people? What are its exports.

7. Locate the countries of South America. Give the principal exports of Argentine Republic, Brazil, and the West Indies.

8. Name eight countries of Europe, and give their capitals and forms of government. What causes the great emigration from Europe to America?

9. Bound India, the Chinese Empire, and Japan. Locate Egypt and Madagascar.

10. Trace the course of a vessel around the world, starting from New York and touching at five great ports.

United States History.

1. Give a brief account of the first settlements in Virginia, New York, and Pennsylvania.

2. Name the wars in which colonies were engaged, and state briefly the causes and results of each.

3. (*a*) Describe three battles of the Revolutionary War. (*b*) What aid did France give to the United States during that war?

4. (*a*) Give the chief defects of the articles of confederation. (*b*) Give a history of the making of the constitution.

5. Causes of the War of 1812? Describe Perry's battle on Lake Erie, and Jackson's battle of New Orleans.

6. Causes of the Mexican War? Date and terms of treaty of peace with Mexico.

7. Chief events of Jefferson's, Monroe's and Buchanan's administrations.

8. Name, describe and give consequences of one battle in each year of the Civil War.

9. Give date of five important inventions, and state some of the effects of each.

10. Name five important events since the Civil War, and state why you consider each important.

GENERAL DUTIES AND PRIVILEGES.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged in the formation of sound character, by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week day except Saturdays, and no student may be absent without excuse. Unexcused absences are taken into account in calculating grades. Students enrolled in any term cannot honorably leave the College before the close of the term, unless excused beforehand by the Faculty. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy 15 minutes before the meeting of classes each morning, and unnecessary absence from them is noted. On Sunday no services are held in the chapel, but students are urgently advised to attend the different churches of the city.

Every Friday, at 1:30 P. M., the whole body of students gather for a lecture from some member of the Faculty, or for the rhetorical exercises of the third- and fourth-year classes. Once a week all the classes meet, in their class rooms, for exercises in elocution and correct expression.

There are four prosperous literary societies which meet weekly, in rooms set apart for their use. The *Alpha Beta*, open to both sexes, and the *Ionian*, for ladies, meet Friday afternoon. The *Webster* and the *Hamilton* admit to membership gentlemen only, and meet on Saturday evening.

The Scientific Club, composed of members of the Faculty and students, meets in the chemical laboratory on the second and fourth Friday evenings of each month.

Branches of the College Y. M. C. A. and Y. W. C. A. hold weekly meetings at the College, and a union meeting on the first Friday evening of each month.

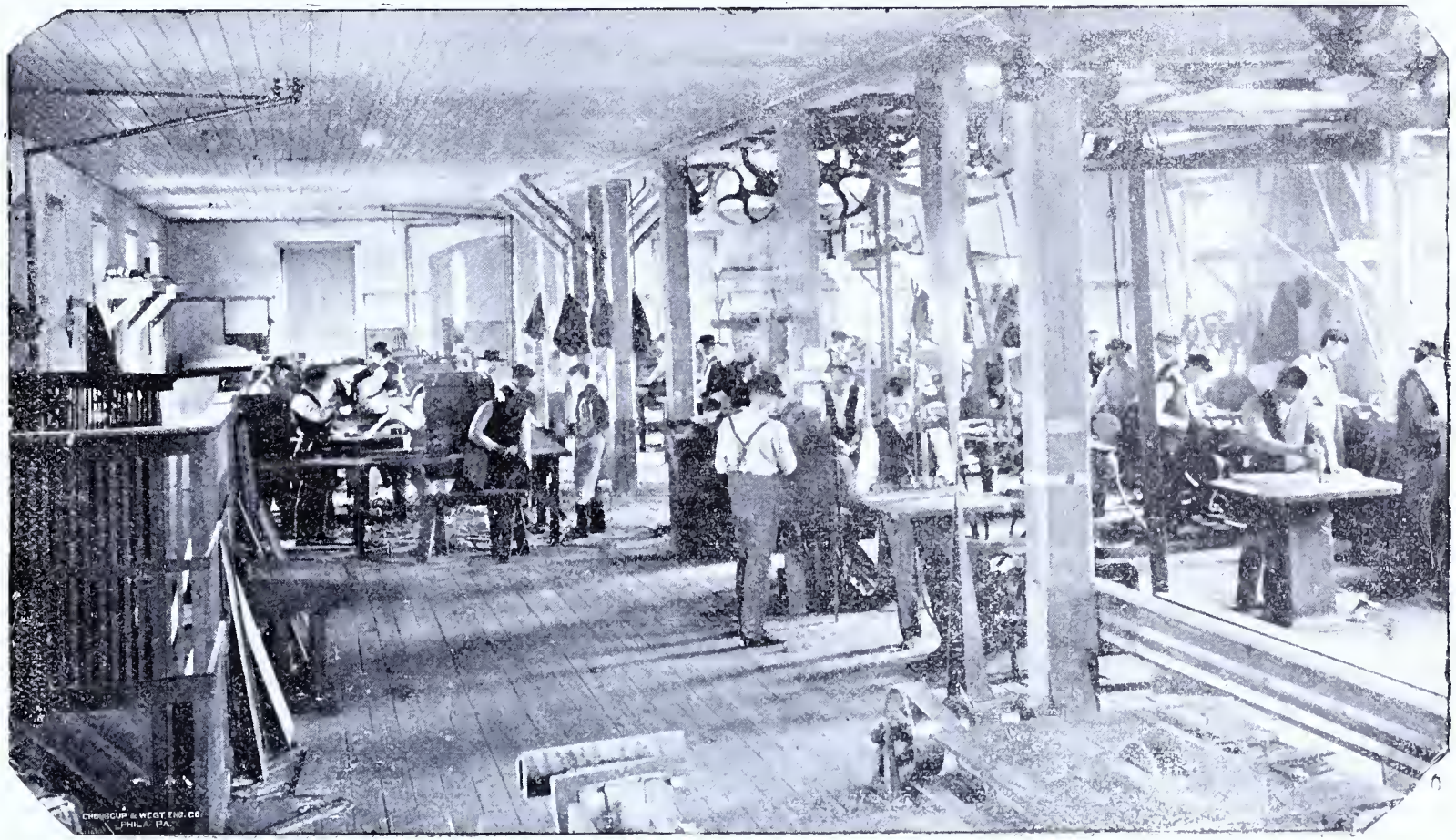
Once in each term the College Hall is opened for a social gathering of Faculty and students, in which music, literary exercises, and friendly greeting find place.

Public lectures by prominent men of the State are provided from time to time, as opportunity offers. All are free.

LABOR AND EARNINGS.

Every encouragement is given to habits of daily manual labor during the College course. Only one hour daily practice in the industrial departments is required; but students are encouraged to make use of other opportunities for adding to their ability and means.

All labor at the College is under the direction of the superintendents of the departments, and offers opportunities for increasing skill and efficiency.



CARPENTER SHOP.

In regular weekly statements, the students are required to observe business forms and principles, showing from their daily account when and where the work was performed.

The shops and offices are opened afternoons and Saturdays for the accommodation of skilled students in work for their own advantage. Everywhere the student who works wins respect; and it is a matter of pride to earn one's way as far as possible.

The labor of the students in the industrial departments is principally a part of their education, and is not paid for unless the student is employed upon work for the profit of the College. Students are so employed upon the farm, in the gardens or the shops, and about the buildings. The labor is paid for at rates varying with services rendered, from 8 to 10 cents an hour. The superintendents strive to adjust their work to the necessities of students and give them the preference in all tasks suitable for their employment. So far as practicable, the work of the shops and offices is turned to account for their benefit; and the increasing extent of the grounds and sample gardens brings more of such labor. The monthly pay roll for the past year ranges from $250 to $400.

Many students obtain work in the city or upon neighboring farms, and so pay part of their expenses. In these ways a few students are able to earn their way through College. The amount so earned will vary according to the tact and zeal of the student. The majority must expect to provide by earnings outside of term time, or from other sources, for the larger part of their expenses. The long summer vacation of three months offers opportunity for farm or other remunerative labor; and no one need despair of gaining an education if he has the ability to use his chances well.

EXPENSES.

Tuition is free, and no general fee for incidental or contingent expenses is charged.

Lessons in instrumental music—two a week—are from $10 to $14 a term, according to its length; one a week, $6 to $8.40. In classes of two or more, the cost is less. One-half is to be paid to the instructor in charge with the first lesson; the other half at the middle of the term.

The cost of text-books at the book stores is, for the first year, about $2.75 a term; for the second year, $3 a term; for the third year, $6.50 a term; and for the fourth year, $2.75 a term. Second-hand books may be obtained at lower prices.

The expenses for apparatus and tools to each student during the course are as follows: Drawing, $4.05; microscope for botany and entomology, $1.50; case, pins, etc., for entomology, $2.25; herbarium, $1.50. The total expense for these articles during the four years is less than $10.

Board and washing are not furnished by the College. Board, with furnished rooms, can be procured in private families at from $2.50 to $3.50 per

week, or table board in student clubs from $1.50 to $2.25 per week. Some students board themselves at even less cost; and rooms for the purpose can be obtained at a rent of from $1 to $3.50 a month. Washing costs from 50c. to $1 a dozen pieces.

Ordinary expenditures, aside from clothing and traveling expenses, range from $100 to $200 a year.

BUSINESS DIRECTIONS.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid at the office of the Treasurer, in Manhattan.

All payments of principal and interest on account of bonds or land contracts must be made to the State Treasurer, at Topeka. Applications for extension of time on land contracts should be sent to the Secretary of the Board of Regents, at Manhattan.

The *Industrialist* may be addressed through Pres. Geo. T. Fairchild, managing editor. Subscriptions are received by Supt. J. S. C. Thompson.

Donations for the library should be sent to the Librarian; donations for the museum, to the chairman of the Committee on Museums.

Questions, scientific or practical, concerning the different departments of study or work, may be addressed to the several professors and superintendents.

General information concerning the College and its work, studies, examinations, grades, boarding places, etc., may be obtained at the office of the President, or by addressing the Secretary.

Applications for farmers' institutes should be addressed, as early in the season as possible, to the President.

The Experiment Station should be addressed through the Secretary of the Council.

A PORTION OF THE COLLEGE HERD.

Graduates.

[This list is made from the best data obtainable. A favor will be conferred by notifying the College of any errors or changes.]

1867.

HENRY L. DENISON, A. M., Denver, Colo. United States court reporter.
BELLE M. HAINES *Pond*, A. M., Topeka, Kas. Housewife.
EMMA L. HAINES *Bowen*, A. M., Manhattan, Kas. Housewife.
JOHN J. POINTS, A. M., Omaha, Neb. Lawyer.
MARTHA A. WHITE *Abbott*, A. M., Chicago, Ill. Housewife.

1871.

EMILY M. CAMPBELL *Robinson*, A. B. Died in 1877.
ELLA F. DENISON *Whedon*, A. B., Lincoln, Nebraska. Housewife.
LUELLA M. HOUSTON, A. B., Concordia, Kas. Milliner and dressmaker.
CHARLES O. WHEDON, B. Sc., Lincoln, Neb. Lawyer.
KATE E. WHITE *Turley*, A. B., Chicago, Ill. Housewife.

1872.

THEOPHANIA M. HAINES *Huntington*, A. B. Died in 1880.
ALBERT TODD, A. M., Fort Sheridan, Ill. Lieutenant First U. S. Artillery.
S. WENDELL WILLISTON, A. M., M. D., Lawrence, Kas. Professor of paleontology and director of the geological survey, State University.

1873.

ELIZA Z. DAVIS *Stringfield*, A. B., Pomona, Cal. Housewife.
SAM KIMBLE, A. B., Manhattan, Kas. County attorney.

1874.

HARRY A. BROUS, A. M., M. D., Philadelphia, Pa. Physician.
EDGAR F. CLARK, A. B., New Whatcom, Wash. Lawyer.
JOHN E. DAVIS, B. Sc., D. D. S., Oakland, Cal. Dentist.
WILLIAM D. GILBERT, A. B., Atchison, Kas. Lawyer.
A. JUDSON WHITE, A. B., Chicago, Ill. Minister.

1875.

REUBEN E. LOFINCK, B. Sc., Manhattan, Kas. Merchant.
ALICE E. STEWART *Points*, A. M., Omaha, Neb. Housewife.

1876.

GEORGE A. GALE, A. B., Lake Worth, Fla. Fruit grower.
ELLA M. GALE *Kedzie*, A. B., Lansing, Mich. Teacher of art.
NELLIE SAWYER *Kedzie*, M. Sc., Manhattan, Kas. Professor of Household Economy and Hygiene in Kansas State Agricultural College.
CARRIE M. KIMBALL, A. B., Garden Grove, Cal. Art instructor.
MINERVA E. WHITMAN *Heiser*, A. B., Lyndon, Kas. Housewife.

1877.

Ella S. Childs, B. Sc., Holdridge, Neb. Teacher.
George H. Failyer, M. Sc., Manhattan, Kas. Professor of Chemistry in Kansas State Agricultural College.
John S. Griffing, M. Sc., Topeka, Kas. Merchant.
Walter C. Howard, B. Sc., Winnebago, Ill. Minister.
Frederick O. Hoyt. B. Sc. Died in 1884.
Louis E. Humphrey, B. Sc., Chapman, Kas. Druggist.
James F. La Tourette, B. Sc., Fort Defiance, Ariz., Indian Agency.
Marion F. Leasure, B. Sc., La Cygne, Kas. Lawyer.
William Ulrich, M. Sc., Manhattan, Kas. Contractor and builder.

1878.

Albert N. Godfrey, M. Sc., Oregon. Farmer and fruit grower.
Charles S. McConnell, B. Sc., Kansas City, Mo. Printer.
Geo. S. Platt, B. Sc. Died in 1878.
Amos E. Wilson, B. Sc., McPherson, Kas. National-bank examiner.

1879.

Arthur T. Blain, B. Sc., Lacanada, Cal. Nurseryman.
Etta Campbell *Blain*, B. Sc., Lacanada, Cal. Housewife.
Wilmer K. Eckman, B. Sc., Longview, Tex. Lumber dealer.
Corvin J. Reed, B. Sc., St. Clere, Kas. Farmer.
Harry C. Rushmore, B. Sc., Ellis, Kas. Train dispatcher.
Wm. H. Sikes, B. Sc., Leonardville, Kas. Merchant and grain dealer.
Lewis A. Salter, B. Sc., Argonia, Kas. Merchant.
Ella Vincent *McCormick*, B. Sc., Clay Center, Kas. Bookkeeper.
Clarence E. Wood, B. Sc., A. B., Denver, Colo. Printer.

1880.

Augustine Beacham, B. Sc., Seattle, Wash. Principal of schools.
Lizzie R. Cox *Kregar*, B. Sc., Milford, Kas. Housewife.
Emma Hoyt *Turner*, B. Sc., St. Paul, Minn. Housewife.
Emma Knostman *Huse*, B. Sc., Arkansas City, Kas. Housewife.
Grace Parker *Perry*, B. Sc., Goodland, Kas. Housewife.
Noble A. Richardson, B. Sc., San Bernardino, Cal. Superintendent of city schools.
Maria E. Sickels *Davis*, B. Sc., Chicago, Ill. Housewife.

1881.

Flora Donaldson *Reed*, B. Sc., St. Clere, Kas. Housewife.
Ulysses G. Houston, B. Sc., Concordia, Kas. Inventor.
Fletcher M. Jeffrey, B. Sc., Escondido, Cal. Lawyer.
William J. Jeffrey, B. Sc., San Diego, Cal. Agent.
Darwin S. Leach, B. Sc., Africa.
William J. Lightfoot, B. Sc., Cripple Creek, Colo. Civil engineer.
Dalinda Mason *Cotey*, B. Sc., Manhattan, Kas. Housewife.
Wirt S. Myers, B. Sc., Tampa, Fla. Furniture manufacturer.

1882.

J. Chester Allen, B. Sc. Died in 1885.
Ida Cranford *Sloan*, B. Sc., Stillwater, Cal. Housewife.
Edward V. Cripps, B. Sc., Boston, Mass. Teacher of elocution.

Warren Knaus, M. Sc., McPherson, Kas. Editor and entomologist.
Mattie E. Mails *Coons*, B. Sc., Manhattan, Kas. Housewife.
Allie S. Peckham *Cordry*, B. Sc., Belleville, Kas. Housewife.
Belle Selby *Curtice*, B. Sc., Kansas City, Mo. Housewife.
Burton L. Short, B. Sc., Kansas City, Kas. City clerk.
John A. Sloan, B. Sc., Stillwater, Cal. Farmer and nurseryman.

1883.

James W. Berry, B. Sc., Jewell City, Kas. Farmer, contractor, and builder.
Mary C. Bower, B. Sc., Manhattan, Kas. Clerk.
Lewis W. Call, B. Sc., LL. M., Washington, D. C. Clerk in Attorney General's office.
Emma E. Glossop, B. Sc., Manhattan, Kas. Teacher.
William J. Griffing, B. Sc., Manhattan, Kas. Farmer and fruit grower.
Phœbe E. Haines, M. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.
Hortense L. Houston *Martin*, B. Sc., Concordia, Kas. Housewife.
Jacob Lund, M. Sc., Manhattan, Kas. Mechanical engineer.
Katie I. Meguire *Sheldon*, B. Sc., Riverside, Cal. Housewife.
J. Dana Needham, B. Sc., Lane, Kas. Merchant.
Milan T. Ward, B. Sc., M. D., Orion, Ill. Physician.
Julius T. Willard, M. Sc., Manhattan, Kas. Assistant Professor of Chemistry, Kansas State Agricultural College.

1884.

Emmett S. Andress, B. Sc., Lakin, Kas. Farmer and stock raiser.
Florence J. Brous, B. Sc., Kansas City, Kas. Teacher.
Bartholomew Buchli, M. Sc., D. V. S., Paxico, Kas. Veterinary surgeon. Teacher.
John H. Calvin, B. Sc., LL. B., Topeka, Kas. Lawyer.
Wm. A. Corey, B. Sc., Salt Lake City, Utah. Teacher and editor.
Henry M. Cottrell, M. Sc., Rhinecliff, N. Y. Superintendent of Ellerslie dairy farm.
Carrie F. Donaldson *Brown*, B. Sc., Portland, Ore. Housewife.
Florence A. Donaldson, B. Sc. Died in August, 1888.
Frank W. Dunn, B. Sc., New Castle, Colo. Farmer and fruit grower.
I. Day Gardiner, B. Sc., Bradford, Kas. Farmer.
Edwin H. Kern, B. Sc., Mankato, Kas. Civil engineer and farmer.
Marion M. Lewis, B. Sc., Ogden, Utah. Minister.
Charles L. Marlatt, M. Sc., Washington, D. C. Assistant in entomological division, U. S. Department of Agriculture.
Lincoln H. Neiswender, B. Sc., Silver Lake, Kas. Farmer.
Geo. C. Peck, B. Sc., Junction City, Kas. Printer.
Hattie L. Peck *Berry*, B. Sc., Jewell City, Kas. Housewife.
John W. Shartel, B. Sc., Guthrie, O. T. Lawyer.

1885.

Thomas Bassler, B. Sc., Geuda Springs, Kas. Teacher and nurseryman.
Albert Deitz, B. Sc., Kansas City, Mo. Merchant.
George E. Hopper, M. Sc., Arkansas City, Kas. In charge of waterworks.
Florence F. Hough, B. Sc., Melrose, Iowa.
Frank A. Hutto, B. Sc., Stillwater, O. T. Lawyer.
Allen Lewis, B. Sc., Topeka, Kas. Civil engineer.
Nellie J. Murphy, B. Sc., Idana, Kas. Teacher.
Arthur L. Noyes, B. Sc., St. Louis, Mo. Electrical engineer.

Clarence D. Pratt, B. Sc., Joplin, Mo. Secretary lead and paint company.
Rollin R. Rees, B. Sc., Minneapolis, Kas. Lawyer.
Frederick J. Rogers, M. Sc., Ithaca, N. Y. Instructor in physics, Cornell University.
Dorothy E. C. Secrest *Hungerford*, B. Sc., Elgin, Tenn. Housewife.
Grace Wonsetler, B. Sc., Verbeck, Kas. Teacher.
Effie E. Woods *Shartel*, B. Sc., Guthrie, O. T. Housewife.

1886.

Lillie B. Bridgeman, M. Sc., Berkeley, Cal. Student and instructor, State University.
Louis P. Brous, B. Sc., Portland, Ore. Draughtsman and topographical engineer.
Paul H. Fairchild, B. Sc., M. D., Brooklyn, N. Y. Publisher of medical journals.
Abbott M. Green, B. Sc., Adin, Cal. Civil engineer and teacher.
James G. Harbord, B. Sc., Fort Leavenworth, Kas. Lieutenant, Fifth Cavalry, U. S. army.
John U. Higinbotham, B. Sc., Chicago, Ill. Cashier, wholesale house.
Maria C. Hopper *Getty*, B. Sc., Downs, Kas. Housewife.
E. Ada Little, B. Sc., Logan, Utah. Instructor in sewing and music, Utah Agricultural College.
Frank L. Parker, B. Sc., Pueblo, Colo. Telegraph operator.
Edward H. Perry, B. Sc., Topeka, Kas. Real-estate agent.
H. Augustus Platt, B. Sc., Coronado, Kas. Farmer.
Ada H. Quinby *Perry*, B. Sc., Topeka, Kas. Housewife.
Ida H. Quinby *Gardiner*, B. Sc., Bradford, Kas. Housewife.
Minnie Reed, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.
David G. Robertson, B. Sc., Osborne, Kas. Lawyer.
Edward O. Sisson, B. Sc., Chicago, Ill. Student, Chicago University.
John W. Van Deventer, B. Sc., Sterling, Colo. Editor.
George W. Waters, B. Sc., Westgate, Kas. Teacher.
William E. Whaley, B. Sc., Manhattan, Kas. Lawyer.
F. Henrietta Willard *Calvin*, B. Sc., Topeka, Kas. Housewife.
John L. Wise., B. Sc., Smithboro, Ill. Merchant.

1887.

Edgar A. Allen, B. Sc., Mojave City, Ariz. Teacher in Indian school.
Fred. H. Avery, B. Sc., Wakefield, Kas. Farmer and horse breeder.
Claude M. Breese, M. Sc., Manhattan, Kas. Assistant in chemistry, Kansas State Agricultural College.
John B. Brown, B. Sc., Nashville, Tenn. Assistant in weather bureau.
Walter J. G. Burtis, B. Sc., Fredonia, Kas. Farmer and teacher.
Mark A. Carleton, B. Sc., Manhattan. Assistant in botany, Experiment Station, Kansas State Agricultural College.
Nellie E. Cottrell *Stiles*, B. Sc., Helix, Cal. Housewife.
Bert R. Elliott, B. Sc., Nederland, Colo. At work on a ranch.
Frederick B. Elliott, B. Sc., Manhattan, Kas. Real-estate and insurance agent.
Clara M. Keyes, B. Sc., Banner, Cal. Teacher.
Fred. G. Kimball, B. Sc., Hastings, Neb. Railway postal clerk.
Frederick A. Marlatt, B. Sc., Manhattan, Kas. Assistant in entomology, Experiment Station, Kansas State Agricultural College.
William J. McLaughlin, B. Sc., Bern, Kas. Teacher and editor.

Mary E. Moses, B. Sc., Manhattan, Kas. At home.
Charles A. Murphy, B. Sc., Kingman, Kas. Principal of high school.
Orlando G. Palmer, B. Sc., LL. M., Washington, D. C. Lawyer.
Louis B. Parker, B. Sc. Died in June, 1889.
James E. Payne, B. Sc., Edgerton, Kas. Real-estate and insurance agent.
Seward N. Peok, B. Sc., Topeka, Kas. Cabinetmaker, railroad shops.
George N. Thompson, B. Sc., Belmond, Iowa. Carpenter.
Willis M. Wright, B. Sc., Lake Arthur, La. Farmer.

1888.

Grant Arnold, B. Sc., Toledo, Wash. Teacher.
Bertha H. Bachelleb, M. Sc., Lyons, Kas. Teacher.
Clement G. Clarke, B. Sc., New Haven, Conn. Student in Yale University.
Alexander C. Cobb, B. Sc., Wagoner, I. T. Farmer and carpenter.
Mattie Cobb *Clarke*, B. Sc., New Haven, Conn. Housewife.
Minnie H. Cowell, B. Sc., Temperance Hospital, N. W., London, Eng. Hospital nurse.
Lyman H. Dixon, B. Sc., Boise City, Idaho. Draughtsman.
David G. Fairchild, M. Sc., Washington, D. C. Assistant in division of vegetable pathology, U. S. Department of Agriculture.
Carl E. Friend, B. Sc., Soldier, Kas. Banker.
John R. Harrison, B. Sc., Salina, Kas. Railway postal clerk.
Humphrey W. Jones, B. Sc., Alma, Kas. Principal of schools.
Nathan E. Lewis, B. Sc., Grand Rapids, Mich. Draughtsman.
Abbie L. Marlatt, M. Sc., Logan, Utah. Professor of domestic economy, Utah Agricultural College.
William C. Moore, B. Sc., Junction City, Kas. Editor.
Ernest F. Nichols, B. Sc., Hamilton, N. Y. Professor of physics, Colgate University.
Harry E. Robb, B. Sc., Eureka, Kas. Farmer and county surveyor.
Anna Snyder, B. Sc., Oskaloosa, Kas. At home.
Edwin H. Snyder, B. Sc., Highlands, Colo. Editor.
Oliver L. Utter, B. Sc., Baldwin, Kas. Student, Baker University.
Aaron Walters, B. Sc. Died in June, 1892.
Lora L. Walters, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.
Daniel W. Working, jr., B. Sc., Fort Collins, Colo. Secretary State Board of Agriculture.

1889.

Emma A. Allen, B. Sc. Died in June, 1891.
Joseph W. Bayles, B. Sc., Garrison, Kas. Teacher and farmer.
Walter R. Browning, B. Sc., Hamlin, Kas. Farmer.
David E. Bundy, B. Sc., Peach Grove, Kas. Minister.
Samuel S. Cobb, B. Sc., Wagoner, I. T. Druggist and postmaster.
Judson H. Criswell, B. Sc., Manhattan, Kas. Farmer.
Mattie I. Farley *Carr*, B. Sc., Oro, Washington. Housewife.
Clarence E. Freeman, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.
Hattie L. Gale *Sanders*, B. Sc., Lake Worth, Florida. Housewife.
John S. Hazen, B. Sc., Des Moines, Iowa. U. S. Weather Bureau observer.
Albert B. Kimball, B. Sc., Manhattan, Kas. Teacher and farmer.
William Knabb, B. Sc., Hiawatha, Kas. Bank clerk.

Mary C. Lee, B. Sc., Manhattan, Kas. Teacher.
Alonzo A. Mills, B. Sc., Logan, Utah. Assistant in agriculture, Utah Agricultural Experiment Station.
Susan W. Nichols, B. Sc., St. Joseph, Mo. Music teacher.
Walter H. Olin, B. Sc., Osborne, Kas. Superintendent of schools.
Eli M. Paddleford, B. Sc., Baldwin, Kas. Student, Baker University.
Maude F. Sayres, B. Sc., Ottawa, Kas. Bookkeeper.
Florine Secrest, B. Sc., San José, Cal. Teacher.
Stanley Snyder, B. Sc., Oskaloosa, Kas. Farmer.
Charles W. Thompson, B. Sc., Holton, Kas. Dentist.
Jane C. Tunnell, B. Sc., Manhattan, Kas. Assistant principal of high school.
Ina M. Turner *Bruce*, B. Sc., Topeka, Kas. Housewife.
Robert U. Waldraven, B. Sc., Ruby, Neb. Minister.
Henry S. Willard, B. Sc., M. D., Manhattan, Kas. Physician.

1890.

Samuel I. Borton, B. Sc., Hilltop, Kas. Farmer.
Frank A. Campbell, B. Sc., Highlands, Colo. Reporter.
Arthur F. Cranston, B. Sc., Parsons, Kas. Lawyer.
John Davis, B. Sc., Wakefield, Kas. Principal of schools.
Grant W. Dewey, B. Sc., Manhattan, Kas. Photographer.
Charles J. Dobbs, B. Sc. Topeka, Kas. Lawyer.
Charles W. Earle, B. Sc., Denver, Colo. Advertising agent.
Schuyler C. Harner, B. Sc., Leonardville, Kas. Teacher and farmer.
John W. Ijams, B. Sc., Pine Ridge Agency, S. D. Farmer.
Bertha S. Kimball, B. Sc., Manhattan, Kas. Postgraduate student and microscopic draughtsman, Kansas State Agricultural College.
Harriet E. Knipe, B. Sc., Manhattan, Kas. Teacher.
Nellie P. Little, B. Sc., Manhattan, Kas. Teacher.
Ellsworth Thomas Martin, B. Sc., Georgetown, Colo. Miner and solicitor.
Silas C. Mason, B. Sc., Manhattan, Kas. Assistant Professor of Horticulture, Kansas State Agricultural College.
Wilton L. Morse, B. Sc., Blackfoot, Idaho. Teacher in Indian school.
Albert E. Newman, B. Sc., Watona, O. T. County superintendent.
Julia R. Pearce, B. Sc., Manhattan, Kas. Assistant Librarian, State Agricultural College.
Emil C. Pfuetze, B. Sc., Manhattan, Kas. Superintendent of city water-works.
William H. Sanders, B. Sc., Lake Worth, Fla. Plumber and builder.
Emma Secrest, B. Sc., Mayfield, Cal. Teacher.
Mary B. Senn, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.
Ralph Snyder, B. Sc., Oskaloosa, Kas. Farmer and teacher.
George E. Stoker, B. Sc., Cambridge, Mass. Student at Harvard University.
Walter T. Swingle, B. Sc., Washington, D. C. Assistant in division of vegetable pathology, U. S. Department of Agriculture.
Gilbert J. Van Zile, B. Sc., Carthage, Ill. Farmer.
Harry N. Whitford, B. Sc., Manhattan, Kas. Teacher.
Thomas E. Wimer, B. Sc. Died in June, 1890.

1891.

William Aaron Anderson, B. Sc., Herington, Kas. Stenographer in railroad office.
William Sherman Arbuthnot, B. Sc., D. V. S., Belleville, Kas. Veterinarian.

Herman William Avery, B. Sc., Wakefield, Kas. Farmer.

Judd Noble Bridgman, B. Sc., Palo Alto, Cal. Student at Leland Stanford University.

Robert James Brock, B. Sc., Manhattan, Kas. Lawyer.

Francis Charles Burtis, B. Sc., Manhattan, Kas. Assistant in agriculture, Experiment Station, Kansas State Agricultural College.

Charles Albert Campbell, B. Sc., Topeka, Kas. Clerk in loan office.

Spencer Norman Chaffee, B. Sc., Lasita, Kas. Teacher and farmer.

Ephraim Clay Coburn, B. Sc., Kansas City, Kas. Clerk in packing house.

Gertrude Coburn, B. Sc., Menomonie, Wis. Instructor in household economy, Stout Manual Training School.

Tina Louise Coburn, B. Sc., Kansas City, Kas. Teacher.

Rachel Callie Conwell, B. Sc., Nelson, I. T. Teacher in Spencer Academy.

Christine Mossman Corlett, B. Sc., Manhattan, Kas. Teacher.

Mary Emmeline Cottrell, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.

Phil Sheridan Creager, B. Sc., Denver, Colo. Editor agricultural journal.

Kary Cadmus Davis, B. Sc., Austin, Minn. Principal of schools.

Thomas Clarke Davis, B. Sc., Benedict, Kas. Farmer.

Helen Pearl Dow, B. Sc., Randolph, Kas. Clerk in post office.

Anna Fairchild *White*, B. Sc., Manhattan, Kas. Housewife.

Harry Benson Gilstrap, B. Sc., Chandler, O. T. Printer and editor.

Almon Arthur Gist, B. Sc., Victoria, Kas. Railroad agent.

Amy Myrtle Harrington, B. Sc., Junction City, Kas. Teacher.

Delpha May Hoop, B. Sc., Manhattan, Kas. Teacher.

Mayme Amelia Houghton, B. Sc., Randolph, Kas. Teacher.

Willis Wesley Hutto, B. Sc., Stillwater, O. T. Professor of English, Oklahoma Agricultural College.

George Victor Johnson, B. Sc., Centreville, Idaho. Teacher.

Frank Mullett Linscott, B. Sc., D. V. S., Ottawa, Kas. Veterinarian.

Bessie Belle Little, B. Sc., Manhattan, Kas. Assistant in sewing and postgraduate student, Kansas State Agricultural College.

Albert Edward Martin, B. Sc., Denver, Colo. Telegraph operator.

Nellie Evangeline McDonald, B. Sc., Manhattan, Kas. Teacher.

David Collins McDowell, B. Sc., Emporia, Kas. Student at Emporia College.

Alfred Midgley, B. Sc., Minneapolis, Kas. Farmer.

Madeleine Wade Milner, B. Sc., Topeka, Kas. At home.

Paul Chambers Milner, B. Sc., Horton, Kas. Stenographer in railroad office.

Harry Elbridge Moore, B. Sc., Portland, Ore. Bookkeeper.

John Otis Morse, B. Sc., Mound City, Kas. Farmer.

Hattie May Noyes, B. Sc., Wabaunsee, Kas. Teacher.

Louise Reed, B. Sc., Selkirk, Kas. Teacher.

Artemus Jackson Rudy, B. Sc., Fresno, Cal. Fruit raiser.

Henry Vernon Rudy, B. Sc., Fresno, Cal. Fruit raiser.

Lottie Jane Short, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.

Ben Skinner, B. Sc., Fairview, Kas. Principal of schools.

Caroline Scott Stingley, B. Sc., Manhattan, Kas. Teacher.

Lillian Alice St. John, B. Sc., Manhattan, Kas. Teacher.

Ellis Cheney Thayer, B. Sc., Vera, Kas. Electrical engineer.

Sam L. Van Blarcom, B. Sc., Kansas City, Kas. Railway postal clerk.

Frank Albert Waugh, B. Sc., Stillwater, O. T. Professor of horticulture, Oklahoma Agricultural College.

Fannie Elizabeth Waugh, B. Sc., Marquette, Kas. Teacher.

Flora Emilie Wiest, B. Sc., St. John, Kas. Teacher.

Bertha Winchip, B. Sc., Manhattan, Kansas. At home.

Alfred Orin Wright, B. Sc., Lake Arthur, La. Editor.

Effie Jeannetta Zimmerman, B. Sc., East Norway, Kas. Teacher.

1892.

Grace Maria Clark, B. Sc., Manhattan, Kas. Clerk in executive offices, Kansas State Agricultural College.

George L. Clothier, B. Sc., Alma, Kas. County superintendent.

Lilian Clyde Criner, B. Sc., Spring Valley, Kas. Teacher.

Harry Darnell, B. Sc., McFarland, Kas. Teacher.

William H. Edelblute, B. Sc., Olympia, Wash. Teacher.

Elizabeth Edwards, B. Sc., Manhattan, Kas. Teacher.

John Frost, B. Sc., Blue Rapids, Kas. Teacher.

Effie Gilstrap, B. Sc., Chandler, O. T. Printer and editor.

Ava Hamill *Tillotson*, B. Sc., Salina, Kas. Housewife.

J N Harner, B. Sc., Maple Hill, Kas. Farmer and teacher.

Loyall S. Harner, B. Sc., Lasita, Kas. Farmer.

Charles Pinckney Hartley, B. Sc., Manhattan, Kas. Horticulturist.

John William Abraham Hartley, B. Sc., Manhattan, Kas. Teacher and horticulturist.

James Laird McDowell, B. Sc., Blackfoot, Idaho. Teacher in Indian school.

Robert A. McIlvaine, B. Sc., Los Cerrillos, N. M. Carpenter.

Kate Oldham *Sisson*, B. Sc., Toronto, Can. Housewife.

Daniel Henry Otis, B. Sc., Manhattan, Kas. Assistant in agriculture, Experiment Station, Kansas State Agricultural College.

Ivan Bryan Parker, B. Sc., Kansas City, Mo. Medical student.

Warner S. Pope, B. Sc., Sentinel, Ariz. Land agent.

Benton Homer Pugh, B. Sc., Topeka, Kas. Student at Washburn College.

Elias W. Reed, B. Sc., St. Clere, Kas. Farmer.

Robert Stirling Reed, B. Sc., Clements, Kas. Teacher.

Arthur Daniel Rice, B. Sc., Randolph, Kas. Teacher.

Fred C. Sears, B. Sc., Manhattan, Kas. Foreman in horticulture, Kansas State Agricultural College.

Birdie E. Secrest, B. Sc., Randolph, Kas. At home.

May Secrest, B. Sc., Randolph, Kas. At home.

Ruth Tipton Stokes, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.

H. W. Stone, B. Sc., Atchison, Kas. Y. M. C. A. secretary.

Walter Percival Tucker, B. Sc., Douglass, Kas. Editor.

Mary Alice Vail, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.

Robert Lynn Wallis, B. Sc., Topeka, Kas. Teacher.

Ora Rebecca Wells, B. Sc., Irving, Kas. Teacher.

Daniel F. Wickman, B. Sc., Topeka, Kas. Clerk in railroad office.

George Washington Wildin, B. Sc., Topeka, Kas. Draughtsman, railroad shops.

Charles Ernest Yeoman, B. Sc., Otis, Kas. Teacher.

SUMMARY.

The number of graduates up to 1892 is 320, of whom 105 are women. Graduates previous to 1877 pursued, with two exceptions, a classical course, and received the degree of Bachelor of Arts. Since 1877, all have received the degree of Bachelor of Science, after a four-years course in the sciences, with good English training.

Of the 215 men, 6 are deceased, and the remainder are reported in the following occupations:

Farmers	36
Fruit growers and nurserymen	10
Stock raisers	2
Professors and instructors in Agricultural Colleges	7
Assistants in Agricultural Experiment Stations	6
Assistants in U. S. Department of Agriculture	3
Editor of agricultural paper	1
Teachers and students of special sciences	5
Veterinary surgeons	3
Mechanics	7
Civil, electrical and mechanical engineers	10
Contractors and builders	2
Architects and draughtsmen	3
General business men	20
Merchants	8
Printers	4
Telegraph operators	2
Photographer	1
Superintendents of public schools	10
Teachers in public schools	26
Teachers in Indian schools	3
Students in other institutions	8
Officers in army	2
Observers in Weather Service	2
Physicians and students of medicine	4
Druggist	1
Dentists	3
Editors	10
Ministers	5
Secretary Y. M. C. A	1
Lawyers and students of law	17
Officials and official clerks	8
Mail-route agents	3
Total	233
In two occupations	24
	209

Of the 105 women, 4 are deceased, and the remainder are occupied as follows:

Housewifes	38
At home	7
Assistant in sewing department	1
Teachers in household economy	4
Teachers in public schools	29
Teacher in Indian school	1
Teachers and students of special sciences	8

Teacher of music	1
Teachers of art	2
Clerks or stenographers	5
Printer	1
Milliner and dressmaker	1
Assistant librarian	1
Hospital nurse	1
Student in other institutions	1
Editor	1
Total	102
In two occupations	1
	101

OCCUPATIONS OF STUDENTS WHO PURSUED THE COURSE BEYOND THE FIRST YEAR, BUT DID NOT GRADUATE.

[In 1892, requests were sent to all students not then in attendance who have been catalogued since 1877 as "second year students," but who did not complete the course, to report their present occupation, and the one they expect to follow permanently. About 600 were addressed, and 45 per cent. responded. Undoubtedly a large number failed to receive the request, because of changes in residence, of which we had not been informed.]

In the summary which follows, the students are divided according as they nearly or fully completed the first, second or third term's work of the last three years of the course:

MEN.	Farming.		Other industries.		Office work and commerce.		Professions.		Teaching.		Railroading and telegraphy.		*Students elsewhere—pres.*	*Students here—future*	*Undecided—future*	*Total reporting*
	Present	*Future*	*Present*	*Future*	*Present*	*Future*	*Present*	*Future*	*Present*	*Future*	*Present*	*Future*				
First term of second year	19	19	7	7	10	9	3	6	5	3	3	2	3	....	4	50
Second term of second year	18	20	3	2	6	1	3	7	3	1	2	1	1	....	4	36
Third term of second year	15	16	9	2	10	6	3	8	5	3	3	4	4	1	9	49
First term of third year	5	4	1	1	3	2	2	3	3	1	1	1	....	1	2	15
Second term of third year	7	4	1	2	1	1	1	4	2	....	1	1	2	2	1	15
Third term of third year	5	....	....	....	5	3	1	4	....	1	....	....	1	....	4	12
First term of fourth year	....	....	1	1	....	....	1	2	....	....	....	....	1	....	....	3
Second term of fourth year	2	1	1	....	....	1	....	....	1	1	....	....	....	....	1	4
Totals	71	64	23	15	35	23	14	34	19	10	10	9	12	4	25	184
Per cent. of total reporting	39	35	13	8	19	12	8	18	10	5	5	5	7	2	13	....

WOMEN.	Housekeeping.		Other industries.		Office work and commerce.		Professions.		Teaching.		*Students elsewhere—pres.*	*Undecided—future*	*Married*	*No occupation—present*	*Total reporting*
	Present	*Future*	*Present*	*Future*	*Present*	*Future*	*Present*	*Future*	*Present*	*Future*					
First term of second year	10	9	1	....	2	2	....	1	3	4	2	2	9	....	18
Second term of second year	4	3	2	2	....	1	1	....	5	6	1	2	4	1	14
Third term of second year	7	5	1	2	2	....	1	3	10	11	4	4	6	1	28
First term of third year	6	6	1	1	....	....	....	....	3	1	....	2	6	....	10
Second term of third year	2	1	....	....	....	....	....	....	....	1	....	....	....	....	2
Third term of third year	9	6	....	....	....	....	1	1	3	5	....	1	6	....	13
First term of fourth year	2	2	....	....	....	....	....	....	1	1	....	....	2	....	3
Second term of fourth year	1	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Totals	41	33	5	5	4	3	3	5	25	29	7	12	33	2	87
Per cent. of total reporting	47	38	6	6	5	3	3	6	28	33	8	14	38	2	....

TOTAL ATTENDANCE FOR FIFTEEN YEARS.

Year.	*Attendance.*	*Year.*	*Attendance.*	*Year.*	*Attendance.*
1878–'79	207	1883–'84	395	1888–'89	445
1879–'80	276	1884–'85	401	1889–'90	514
1880–'81	267	1885–'86	428	1890–'91	593
1881–'82	312	1886–'87	481	1891–'92	584
1882–'83	347	1887–'88	472	1892–'93	587

DISTRIBUTION, BY COUNTIES.

COUNTIES.	1878–'79	1880–'81	1881–'82	1882–'83	1883–'84	1884–'85	1885–'86	1886–'87	1887–'88	1888–'89	1889–'90	1890–'91	1891–'92	1892–'93	Totals.
Allen	1	1	1	....	....	3	....	1	....	....	....	....	....	....	7
Anderson	....	4	3	2	2	....	....	....	....	5	1	4	1	2	1	23
Atchison	4	1	....	3	4	4	3	9	6	9	4	5	3	....	2	57
Barber	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	2
Barton	....	2	....	1	4	1	1	3	1	2	....	....	....	2	....	17
Bourbon	....	....	1	1	....	2	....	1	2	1	....	....	1	1	....	10
Brown	....	1	....	2	6	....	2	14	7	11	6	3	4	1	2	59
Butler	6	7	6	2	1	1	1	2	5	3	5	6	4	1	....	56
Chase	....	3	6	1	2	5	4	3	3	2	3	2	4	3	3	44
Chautauqua	4	1	1	2	3	3	4	....	....	1	4	4	....	1	....	28
Cherokee	18	13	10	3	3	3	1	2	4	2	....	....	....	2	1	62
Clark	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	2
Clay	3	9	10	18	23	26	26	25	22	11	10	10	12	8	15	228
Cloud	....	....	....	1	8	3	6	6	11	2	2	2	4	4	1	47
Coffey	3	....	1	1	3	2	2	3	4	2	4	3	5	4	1	38
Comanche	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
Cowley	3	5	6	4	1	9	7	3	2	5	5	7	9	2	7	75
Crawford	2	1	....	....	....	....	2	1	2	3	2	....	1	....	....	14
Decatur	....	....	....	....	1	1	2	2	....	....	....	....	....	....	....	6
Dickinson	3	4	4	3	4	6	5	4	6	4	3	6	4	4	4	64
Doniphan	....	....	2	....	1	1	....	....	2	1	3	2	3	1	3	19
Douglas	....	1	1	4	....	2	3	3	6	3	1	....	3	2	3	32
Elk	....	1	....	1	6	1	4	1	4	4	1	1	3	3	1	31
Ellis	....	....	....	....	....	....	....	....	....	1	3	1	1	....	....	6
Ellsworth	1	....	2	2	1	1	....	2	2	....	....	2	2	....	1	16
Finney	....	....	....	....	....	....	1	....	....	2	....	1	2	3	2	11
Ford	1	....	....	....	1	....	....	....	....	....	....	....	1	1	2	6
Franklin	....	2	1	4	7	6	6	....	4	3	1	....	5	5	3	47
Garfield	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Geary	6	9	9	6	15	16	6	7	5	14	13	8	13	10	10	147
Gove	....	....	....	....	....	....	....	....	....	....	1	....	2	....	....	3
Graham	....	....	....	....	....	....	....	....	3	2	....	3	4	3	1	16
Grant	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Greenwood	1	7	3	6	2	....	1	1	3	4	1	1	1	3	4	38
Harper	....	....	....	....	....	....	....	1	....	....	3	3	2	2	4	15
Harvey	1	....	....	....	2	2	1	1	2	1	1	....	1	1	2	15
Jackson	2	3	6	6	2	2	1	3	4	10	5	5	2	10	13	77
Jefferson	4	6	11	14	2	6	4	7	12	9	11	21	9	16	11	143
Jewell	1	2	11	6	10	8	10	7	7	3	....	1	2	2	4	74
Johnson	8	11	....	5	2	8	8	5	2	2	6	11	13	13	10	104
Kingman	....	....	....	....	....	....	1	2	4	1	....	1	1	2	1	13
Kiowa	....	....	....	....	....	....	....	....	....	1	3	....	1	2	2	9
Labette	1	....	....	3	3	....	1	....	2	3	2	2	4	2	....	23
Lane	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Leavenworth	....	....	2	5	4	1	8	4	5	5	4	4	6	5	3	56
Lincoln	2	....	2	....	1	....	....	1	1	3	....	1	2	3	4	20
Linn	....	1	....	....	....	1	....	8	7	7	5	11	4	2	1	47
Lyon	7	4	5	2	....	3	2	3	4	3	4	1	4	2	4	48
Marion	....	1	1	2	1	....	....	....	1	1	4	2	2	1	6	22
Marshall	2	4	....	3	5	6	7	5	10	9	11	14	9	11	15	111
McPherson	....	1	2	3	2	5	4	2	4	4	5	8	8	9	1	58
Meade	....	....	....	....	....	....	....	....	3	....	....	....	....	1	3	7
Miami	....	1	....	....	....	1	1	3	1	1	3	4	2	1	1	19
Mitchell	2	2	4	3	4	3	4	....	3	1	....	2	10	8	5	51
Montgomery	3	2	....	1	....	2	....	4	2	1	2	1	....	....	....	18
Morris	....	3	....	1	1	8	6	3	4	6	4	9	7	6	11	69
Nemaha	6	5	1	2	1	4	2	5	9	4	5	1	3	9	11	68
Neosho	2	....	....	....	....	....	....	....	1	1	....	1	3	1	1	10
Ness	....	....	....	....	....	....	1	....	1	1	1	....	3	1	....	8
Norton	....	1	....	....	....	....	1	....	....	1	1	1	1	1	....	7
Osage	2	1	....	2	6	6	18	5	6	6	10	9	7	24	16	118
Osborne	1	1	2	1	2	7	5	7	3	11	6	6	5	6	10	73
Ottawa	3	5	6	5	14	12	12	8	14	8	3	1	9	6	8	114
Pawnee	....	....	....	1	....	1	1	....	1	1	....	....	1	1	....	7
Phillips	....	1	....	1	1	2	1	1	2	1	....	5	2	3	4	24
Pottawatomie	6	8	6	7	12	16	15	11	10	23	31	24	25	30	23	257

COUNTIES.	1879...	1880...	1881...	1882...	1883...	1884...	1885...	1886...	1887...	1888...	1889...	1890...	1891...	1892...	1893...	Totals.
Pratt	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1
Rawlins	....	....	....	....	....	....	....	....	....	....	....	2	2	2	....	6
Reno	....	....	....	....	1	4	2	1	....	1	....	....	....	1	2	12
Republic	1	....	....	1	....	2	5	9	12	9	5	6	1	5	3	59
Rice	....	....	2	1	....	3	5	5	4	1	3	4	4	4	5	41
Riley	65	77	77	90	100	112	99	121	140	147	148	175	199	183	198	1931
Rooks	....	....	....	....	....	....	1	1	1	1	....	1	1	1	....	7
Rush	....	1	1	1	....	....	1	....	3	2	1	2	4	4	4	24
Russell	....	....	....	....	....	....	1	1	2	1	....	....	5	8	10	28
Saline	2	4	5	3	1	3	5	1	....	....	....	....	1	2	4	31
Scott	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
Sedgwick	1	2	2	....	3	2	2	....	....	....	....	....	....	4	3	19
Shawnee	8	27	13	16	13	11	12	9	12	10	13	21	39	32	25	259
Sheridan	....	....	....	....	....	....	....	1	1	....	1	....	....	....	....	3
Sherman	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	4
Smith	1	....	1	....	....	....	1	2	2	3	1	1	4	6	....	22
Stafford	....	....	....	1	1	....	1	1	1	2	....	1	....	....	....	8
Stevens	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1
Sumner	2	1	1	2	....	6	1	3	3	2	....	5	8	4	1	59
Thomas	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	3
Trego	....	1	2	3	2	3	1	1	....	....	2	....	1	2	1	19
Wabaunsee	6	10	20	16	14	17	13	18	23	15	17	19	24	22	21	255
Wallace	....	1	5	11	2	2	4	....	....	....	....	1	1	1	....	3
Washington	4	....	....	....	....	....	....	....	6	6	11	8	8	6	6	85
Wilson	3	2	1	1	....	3	5	7	4	4	5	5	2	3	2	47
Woodson	....	....	....	....	....	1	2	1	2	....	....	5	5	6	13	35
Wyandotte	....	....	2	1	1	2	....	2	4	10	7	5	7	2	7	50

DISTRIBUTION BY STATES.

STATES.	1879...	1880...	1881...	1882...	1883...	1884...	1885...	1886...	1887...	1888...	1889...	1890...	1891...	1892...	1893...	Totals.
Arizona	....	....	....	....	....	....	1	1	....	....	....	1	1	....	....	4
Arkansas	....	....	....	3	1	....	....	1	....	....	....	1	....	....	....	6
California	....	....	....	....	....	....	1	1	1	1	2	1	1	1	1	10
Colorado	....	....	....	1	1	....	1	2	3	1	....	....	2	3	8	23
England	....	....	....	1	....	4	3	2	....	1	1	1	....	....	....	13
Florida	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1
Germany	....	....	....	....	....	....	....	....	....	1	....	....	1	2	1	5
Holland	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Illinois	3	2	1	4	1	1	7	10	3	7	4	2	....	3	1	49
Idaho	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1
Iowa	1	1	....	1	5	3	3	3	3	....	....	5	4	....	1	31
Indiana	....	....	1	1	1	1	1	3	1	....	2	....	....	....	....	11
Indian Territory and Oklahoma	....	....	....	....	....	....	4	4	3	4	4	2	3	2	6	32
KANSAS	198	261	259	288	320	371	363	378	449	437	419	482	555	552	555	5887
Kentucky	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	2
Michigan	....	1	2	1	....	....	....	....	....	1	....	....	....	....	1	5
Missouri	1	5	3	3	4	5	10	10	4	7	6	8	10	7	5	88
Minnesota	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Montana	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Massachusetts	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Nebraska	....	....	....	2	1	4	3	3	2	4	1	3	3	7	2	35
New Jersey	....	....	....	....	....	....	....	1	2	2	....	....	....	....	....	5
New Mexico	....	1	....	4	5	2	1	1	2	....	1	2	1	1	1	22
New York	2	1	....	1	2	....	1	....	2	2	2	....	....	1	....	14
North Carolina	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	2
Ohio	....	2	1	1	3	1	1	2	....	....	....	....	1	3	2	17
Pennsylvania	1	....	....	1	1	2	1	2	3	2	....	....	....	....	....	13
South Dakota	....	....	....	....	....	....	....	....	....	....	....	1	2	....	1	4
Tennessee	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	3
Texas	....	....	....	....	....	....	....	....	....	....	....	1	....	1	3	5
Utah	....	....	....	....	....	....	....	1	1	1	1	3	3	....	....	10
Rhode Island	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	2
Wales	....	....	....	....	....	....	....	....	....	1	1	1	1	1	....	5
Washington, D. C	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1
Wisconsin	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1
Wyoming	....	....	....	....	....	....	....	1	1	....	....	....	....	....	1	3
Vermont	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1

Index.

PAGE.

ADMISSION, TERMS OF, ... 48
ATTENDANCE, 1893, ... 21
1879–'93, ... 65
By counties, 1879–'93, ... 65
By States, 1879–'93, ... 66
BOARD OF REGENTS, ... 3
BUSINESS DIRECTIONS, ... 54
CALENDAR, ... 2
COURSE OF STUDY, ... 24
Degrees, ... 29
Industrial Training, ... 26, 39
Postgraduate Courses, ... 29
Class Hours, 1893–'99, ... 27, 28
Short Lecture Course for Farmers, ... 29
Special Courses, ... 26
ENDOWMENT AND RESOURCES, ... 22
EQUIPMENT, ... 43, 47
EXAMINATIONS, ... 48
EXPENSES, ... 53
EXPERIMENT STATION, ... 7, 23, 24
FACULTY, ... 4
FARMERS' INSTITUTES, ... 24
GENERAL DUTIES AND PRIVILEGES, ... 52
GRADUATES, ... 55
Occupations of, ... 63
GROUNDS AND BUILDINGS, ... 42–44
INDUSTRIALIST, ... 24, 40, 54
LABOR AND EARNINGS, ... 52
LIBRARY, ... 44
MEANS OF ILLUSTRATION, ... 45–47
OBJECTS AND METHODS, ... 23–30
OCCUPATIONS OF GRADUATES, ... 63
Of Former Students, ... 65
OUTLINE OF INSTRUCTION, ... 30–41
Agriculture, ... 30, 39
Algebra, ... 35
Anatomy and Physiology, ... 34
Bookkeeping and Commercial Law, ... 35
Botany, ... 31
Chemistry, ... 32
Drawing, ... 36
English Language and Literature, ... 37
Entomology, ... 31

Outline of Instruction — *Concluded:*
Geology, . . . 33
Geometry, . . . 35
History and Political Science, . . . 38
Horticulture, . . . 31
Household Economy, . . . 34
Industrial Arts, . . . 39
Agriculture and Horticulture, . . . 39
Woodwork, . . . 39
Cooking, . . . 39
Dairying, . . . 40
Instrumental Music, . . . 40
Ironwork, . . . 39
Printing, . . . 40
Sewing, . . . 40
Logic and Philosophy, . . . 38
Mechanics and Engineering, . . . 36
Military Training, . . . 41
Mineralogy, . . . 33
Physics and Meteorology, . . . 35
Political Economy, . . . 38
Short Course for Farmers, . . . 29
Special Courses, . . . 26
Special Hygiene, . . . 34
Trigonometry and Surveying, . . . 35
Veterinary Science, . . . 34
Vocal Music, . . . 41
Zoölogy, . . . 34
Students, . . . 8
Summmary of Attendance, . . . 21
Terms and Vacations, . . . 2
Terms of Admission, . . . 48
County Diplomas, . . . 49
City Certificates, . . . 49
Teachers' Certificates, . . . 49

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WINTER TERM:	January 9 to March 30.
SPRING TERM:	April 2 to June 13.
	June 13, Commencement.

1894-'95.

FALL TERM:	September 13 to December 21.